

**TEACHING AS INQUIRY:  
UNDERSTANDINGS AND CHALLENGES TOWARDS  
A PROFESSIONAL WAY OF BEING**

By

**JUSTINE DRIVER**

A thesis submitted in partial fulfilment  
of the requirements for the degree of

**Master of Educational Leadership and Management**

Unitec Institute of Technology

2011

## **ABSTRACT**

New Zealand educators are increasingly using inquiry based approaches as a solution to contextual challenges in their organisation. Inquiry is often understood as a cycle of learning, a process for investigating current evidence, assumptions, and practices to inform changes in professional practice to take action; action to raise student outcomes. However, with the inclusion of the teaching as inquiry model in the New Zealand Curriculum and embedded in the Registered Teachers' Criteria, there is a move for teachers to engage in inquiry at a deeper level; as a professional way of being. For educators to accept an inquiry stance requires a change in mind set of the way that teachers' view their professional activity.

A qualitative methodology was employed for this research that was conducted in two phases. In phase one documentary analysis was undertaken to provide a contextual background on the expectations from official sources on the leadership activity that may promote teaching as inquiry, a culture of inquiry and the notion of schools as learning organisations. Concurrently, a purposive questionnaire provided base-line data of the prevalence of teaching as inquiry across a small geographical area within Auckland. A small scale multiple case study was undertaken in phase two, where ten semi-structured interviews took place across three research locations with school leaders and teachers to examine the understandings, practices and challenges for implementing teaching as inquiry.

The findings from this study revealed that teaching as inquiry is a tool for implementing change within schools and managing change is challenging for school leaders and teachers. The findings also exposed that the school context largely determined the extent to which teaching as inquiry was understood and practiced by staff.

This study highlights the need for school leaders and teachers to adopt inquiry as a professional way of being within their organisation. Emphasis is placed on the leadership activity that continually promotes the cultural conditions in which teaching as inquiry can occur so that there are improved outcomes for students, teachers and the school as a learning organisation.

## ACKNOWLEDGEMENTS

This thesis would not have been completed without the support of some very special people and organisations. Their interest and support have been appreciated and valued.

I would like to thank the principals, senior leaders and teachers from the three research schools that so freely gave their time to participate in an interview. I found the experience truly rewarding and hope that you find some of the data interesting. Thanks also to the respondents of the base-line questionnaire from my local area, your support was appreciated.

I would like to thank the Unitec Postgraduate Scholarship Committee for seeing that I was a worthy recipient for a scholarship and the Ministry of Education for granting me paid study leave in order to make completing this thesis possible. I wish to thank the Board of Trustees from my school for supporting my application for leave from my position; I look forward to bringing my new knowledge and experiences back to our learning community.

I wish to thank my supervisor Howard for his advice and guidance over the year; your insights have proven to be valuable and you have catered to my learning needs in a timely manner and with patience. I have valued the support, encouragement and collegiality of my MEdLM peers, along with the knowledgeable staff of the Education Department at Unitec.

Most importantly thanks to Jonathan, Piers and Bodhi who have given me the space to be '*plugged in again*' to the computer. It has been wonderful to have the time together as a family and attend school functions, that as a working parent I don't normally get to do. Thanks also to my friends for your encouraging words and support that I could get this done. And finally to my late mother, Gloria Dixie, for valuing education and always pushing me to do better! You all believed in me and are 'the wind beneath my wings'.

## TABLE OF CONTENTS

|  |           |
|--|-----------|
| ABSTRACT .....   | ii        |
| ACKNOWLEDGEMENTS .....   | iii       |
| TABLE OF CONTENTS .....  | iv        |
| LIST OF TABLES .....   | vi        |
| LIST OF FIGURES .....  | vii       |
| ABBREVIATIONS .....  | viii      |
| <br>   |           |
| <b>CHAPTER ONE: INTRODUCTION .....</b>   | <b>1</b>  |
| Rationale .....  | 1         |
| Research Aims .....  | 4         |
| Research Questions .....   | 5         |
| The thesis outline .....   | 5         |
| <b>CHAPTER TWO: LITERATURE REVIEW .....</b>  | <b>7</b>  |
| Teaching as inquiry: defining an effective pedagogy .....  | 8         |
| Teaching as inquiry: teacher professional learning and development .....   | 15        |
| Teaching as inquiry: a mechanism for sustained school improvement through leaders creating organisational learning ..... | 20        |
| The leadership for learning context .....  | 23        |
| <b>CHAPTER THREE: METHODOLOGY .....</b>  | <b>31</b> |
| The Research Design and Sample Selection .....   | 32        |
| Base-line Questionnaire Sampling .....   | 34        |
| School Sampling .....  | 34        |
| Semi-structured Interview Sampling .....   | 36        |
| Research Methods .....   | 37        |
| Data Analysis .....  | 41        |
| Reliability and validity .....   | 44        |
| Ethical Issues .....   | 46        |
| <b>CHAPTER FOUR: SETTING THE SCENE FOR RESEARCH FINDINGS .....</b>   | <b>50</b> |
| Documentary analysis findings from official documents .....  | 50        |
| The Kiwi Leadership Model (KLP) – a model of educational leadership .....  | 51        |
| The Professional Standards for Primary Principals .....  | 53        |
| The Registered Teacher Criteria and Handbook .....   | 55        |
| Base-line questionnaire findings .....   | 61        |
| Question Items .....   | 61        |

|  |            |
|--|------------|
| <b>CHAPTER FIVE: FINDINGS FROM THE CASE SCHOOLS .....</b>  | <b>70</b>  |
| Understandings of teaching as inquiry .....  | 71         |
| Teaching as inquiry is teacher centred through changes in teaching practice.....   | 72         |
| Teaching as inquiry is a cyclic process .....  | 73         |
| Teaching as inquiry is a reflective practice.....  | 73         |
| Teaching as inquiry is based on using evidence .....   | 74         |
| Teaching as inquiry has improved outcomes for teachers and students ...  | 74         |
| Findings from School X .....   | 76         |
| Findings from School Y .....   | 85         |
| Findings from School Z .....   | 96         |
| Summary of Challenges across the Case Sites .....  | 101        |
| <b>CHAPTER SIX: DISCUSSION OF FINDINGS .....</b>   | <b>107</b> |
| Teaching as inquiry: context and understandings .....  | 108        |
| Teaching as inquiry: systems in action.....  | 112        |
| Teaching as inquiry: challenges for building culture .....   | 116        |
| Conclusion .....   | 119        |
| <b>CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS .....</b>   | <b>120</b> |
| How is the practice of teaching as inquiry understood in a primary school? .....   | 121        |
| How do the espoused systems of promoting and sustaining teaching as inquiry align with teacher practice and external requirements? ..... | 122        |
| What challenges do primary school leaders and teachers face implementing inquiry based practices? .....                                  | 124        |
| A conceptual understanding of teaching as inquiry for conclusion .....   | 126        |
| Limitations of Research .....  | 128        |
| Recommendations .....  | 129        |
| Concluding Statement .....   | 131        |
| <b>REFERENCES .....</b>  | <b>133</b> |
| <b>APPENDICES.....</b>   | <b>139</b> |
| Appendix 1: Information Sheet Base-line Questionnaire .....  | 139        |
| Appendix 2: Base-line Questionnaire .....  | 140        |
| Appendix 3: Information Sheet for interviews .....   | 142        |
| Appendix 4: Interview Consent Form .....   | 143        |
| Appendix 5: Leader Interview Schedule .....  | 144        |
| Appendix 6: Teacher Interview Schedule .....   | 145        |

## LIST OF TABLES

|                   |   |            |
|-------------------|---|------------|
| <b>Table 3.1:</b> | Profiles of Participating Schools .....                         | <b>35</b>  |
| <b>Table 3.2:</b> | Participant Demographic .....                                   | <b>36</b>  |
| <b>Table 4.1:</b> | Professional Standards related to Culture .....                 | <b>54</b>  |
| <b>Table 4.2:</b> | Professional Standards related to Pedagogy .....                | <b>54</b>  |
| <b>Table 4.3:</b> | Professional Standards related to Systems .....                 | <b>55</b>  |
| <b>Table 4.4:</b> | Registered Teacher Criteria 1 .....                             | <b>57</b>  |
| <b>Table 4.5:</b> | Registered Teacher Criteria 4 .....                             | <b>57</b>  |
| <b>Table 4.6:</b> | Registered Teacher Criteria 5 .....                             | <b>58</b>  |
| <b>Table 4.7:</b> | Registered Teacher Criteria11 .....                             | <b>59</b>  |
| <b>Table 4.8:</b> | Registered Teacher Criteria12 .....                             | <b>59</b>  |
| <b>Table 5.1:</b> | Participant coding .....  | <b>71</b>  |
| <b>Table 5.2:</b> | Sources that inform understandings on teaching as inquiry ..... | <b>76</b>  |
| <b>Table 5.3:</b> | Challenges implementing inquiry based practices .....           | <b>101</b> |

## LIST OF FIGURES

|                    |   |            |
|--------------------|---|------------|
| <b>Figure 2.1:</b> | The NZC Teaching as Inquiry Model.....  | <b>10</b>  |
| <b>Figure 2.2:</b> | Teacher inquiry and knowledge-building cycle to promote valued student outcomes .....                                 | <b>11</b>  |
| <b>Figure 2.3:</b> | Teaching as inquiry: a model of evidenced informed pedagogy.....  | <b>13</b>  |
| <b>Figure 2.4:</b> | A deep learning cycle: the relationship between an organisation's structure and culture.....                          | <b>25</b>  |
| <b>Figure 2.5:</b> | The dimensions of effective leadership, together with the associated knowledge, skills, and dispositions.....         | <b>27</b>  |
| <b>Figure 3.1:</b> | The Research Design.....  | <b>34</b>  |
| <b>Figure 4.1:</b> | The Kiwi Leadership Model.....  | <b>51</b>  |
| <b>Figure 4.2:</b> | Systems that a primary school leader may employ to promote a culture of professional inquiry.....                     | <b>62</b>  |
| <b>Figure 4.3:</b> | Models of inquiry used in organisations.....  | <b>63</b>  |
| <b>Figure 4.4:</b> | How professional inquiry is monitored in organisations.....   | <b>64</b>  |
| <b>Figure 4.5:</b> | Who monitors professional inquiry in organisations.....   | <b>65</b>  |
| <b>Figure 4.6:</b> | Common terminology or phrases used for teaching as inquiry/ professional inquiry based practice in organisations..... | <b>67</b>  |
| <b>Figure 4.7:</b> | Challenges leaders identify when implementing professional inquiry based practices.....                               | <b>68</b>  |
| <b>Figure 5.1:</b> | School X Effective Practice Cycle.....  | <b>77</b>  |
| <b>Figure 5.2:</b> | School Y Professional Growth Model.....   | <b>86</b>  |
| <b>Figure 7.1:</b> | Understanding the concept of teaching as inquiry.....   | <b>126</b> |

## **ABBREVIATIONS**

|                 |  |
|-----------------|--|
| <b>AfL</b>      | Assessment for Learning                                    |
| <b>BES</b>      | Best Evidence Synthesis                                    |
| <b>KLP</b>      | Kiwi Leadership Practice                                   |
| <b>KSD</b>      | Knowledge, Skills and Dispositions                         |
| <b>MECI</b>     | Monitoring and Evaluating Curriculum Implementation Report |
| <b>Ministry</b> | Ministry of Education                                      |
| <b>NAG</b>      | National Administrative Guidelines                         |
| <b>NZC</b>      | New Zealand Curriculum                                     |
| <b>NZTC</b>     | New Zealand Teachers Council                               |
| <b>PRT</b>      | Provisionally Registered Teacher                           |
| <b>RTC</b>      | Registered Teacher Criteria                                |
| <b>UREC</b>     | Unitec Research Ethics Committee                           |



# **CHAPTER ONE**

## **INTRODUCTION**

### **INTRODUCTION**

The purpose of this chapter is to outline my research study ‘teaching as inquiry: understandings and challenges towards a professional way of being’. This chapter will start with sharing my rationale for the study and provide a context for the topic teaching as inquiry. It will then address the research aims and questions and conclude with an outline of the thesis chapters.

The research study examined the systems school leaders use to promote a culture of inquiry, in order to understand practices that leaders can employ to ensure teaching as inquiry occurs. If developing and sustaining systems to “support and enhance learning” (Ministry of Education (Ministry), 2008a, p.19) is an expectation of effective leadership, then what is problematic is that not enough is known about a) the prevalence in schools that the practice of teaching as inquiry occurs; b) what systems are employed to promote and sustain a culture of inquiry; and subsequently, c) what challenges school leaders and teachers face when implementing professional inquiry. My research contributes to the body of literature on teaching as inquiry in order to help school leaders, teachers and interested others to understand the problem and consequently improve the development of systems because they are linked to the quality of teaching that impacts on the learning outcomes of students.

### **RATIONALE**

In the New Zealand context of self-governing and self-managing schools, National Administration Guidelines (NAGs) specify a set of Ministry policy guidelines that schools are required to implement. Each school develops its own policy, procedures and curriculum delivery plans to clearly state its

interpretation of the NAGs. Included in this documentation is how the school will implement the New Zealand Curriculum. Documentation needs to be clearly aligned to school and classroom programming and strategies, and set the direction of the school in a clear and purposeful way.

Teaching as inquiry is promoted in the revised New Zealand Curriculum (Ministry, 2007) as an important aspect of effective pedagogy. The New Zealand Curriculum (NZC) provides schools with the direction for teaching and learning. It is a framework, rather than a comprehensive mandatory plan and schools develop their own curriculum and teaching programmes from it because each school via its Board of Trustees is self-governing and self-managing. Every school must teach a curriculum that incorporates the New Zealand Curriculum's vision, principles and key competencies (Ministry, 2008b). In February 2010 the NZC became mandatory for all New Zealand schools to implement; investigating how schools interpret the effective pedagogy section of the NZC is of particular interest to see whether teaching as inquiry is ubiquitous across schools as best practice.

Teaching as inquiry, whilst being a critical aspect of effective pedagogy in the NZC is not compulsory to employ in schools. Schools need to make their own policies and directions for employing effective practices and pedagogy while taking into account the recommendations present in Ministry documentation like the Best Evidence Synthesis (BES) series. Harris (2002) discusses the need for schools to carefully select the pedagogy to match the developmental needs and priorities of the school. In the *Teacher Professional Learning and Development* BES (Timperley, Wilson, Barrar & Fung, 2007), Earl (2007) states:

Effective professional learning is a powerful lever for getting the kinds of change that can enhance student learning. But this may not happen if the process is purely voluntary, left to teachers to take up or not take up. The kind of professional learning that makes a difference for students is hard work and demands strong policy support and professional determination. (Cited in Timperley et al., 2007, p. ix)

Therefore, educational leaders need to actively create environments that are collaborative, dialogue rich and promote professional inquiry that makes a difference for student outcomes not alone, but through others (Gunter, 2005; Harris, 2002; Ministry, 2008a; Robinson, Hohepa & Lloyd, 2009).

The Kiwi Leadership for Principals (KLP) strategy (Ministry, 2008a) presents a model of educational leadership expected for all New Zealand principals of the qualities, knowledge and skills needed to lead 21st century schools. In the KLP Strategy (Ministry, 2008a) the dimensions of building an effective school culture, fostering an environment of effective pedagogy to enable learning success, developing systems and leading change are key aspects in the role of an effective New Zealand educational leader.

Educational leadership is at the heart of the KLP model outlining the model's central purpose to concentrate leadership activity on raising outcomes, this correlates with the underlying principle of inquiry in education is to make decisions about practice that will help raise student outcomes. These decisions include those about what educators need to learn and do in order to promote students' learning and well-being (Aitken, n.d.). This occurs at several levels within schools; Boards of Trustees, school leaders and classroom teachers need to consider their role in implementing a culture of teaching as inquiry. A culture of teaching as inquiry has two elements: "inquiry as 'a way of being' and inquiry as a series of learning cycles" (Ministry, 2008c, p.43), which will be examined in this study.

As an aspiring principal this study is underpinned by this model and I was motivated as a practitioner researcher by my experiences as a deputy principal working in two different primary schools over the last six years. During this time I worked with staff to make sense of the draft revised New Zealand Curriculum (NZC) and the implementation of the revised NZC. I was heavily involved in establishing systems by writing: school based policy as required under the NAGs; documentation to reflect each school's interpretation of the NZC; and supporting documentation for staff to implement each school's requirements into practice. My current role as a deputy principal involves aggregating school data to report to the Education Review

Office, Board of Trustees, school leaders and classroom teachers, and to lead staff professional development while promoting a culture of professional inquiry. This directed my concentration to teaching as inquiry, as I believed that each school may have a different journey to share in translating the effective pedagogy section of the NZC. I was interested to share this journey of schools with a particular focus on the systems school leaders employed to promote teaching as inquiry and the voice of the teacher involved in such practice. I therefore proposed at the start of this research that schools will have diverse ways of responding to the NZC and in particular interpreting teaching as inquiry as an effective pedagogy.

As a senior leader I was also interested in investigating and sharing how schools were developing cultures of inquiry. Principals and senior leaders may not use the term culture of inquiry therefore I was interested in finding out whether they describe practices that contribute to developing one: employing effective formative assessment practices (including quality feedback to students), promoting learning conversations with colleagues based on evidence to inform practice, making evidence-based decisions through discussing achievement data and the implication for school resourcing, professional development in order to raise student outcomes, reflective practice, and professional learning circles could be some of the items that leaders may discuss.

## **Research Aims**

As a school leader I am mindful that I need to be involved in professional inquiry within my organisation, and by doing so I am able to not only deepen my own pedagogical knowledge and understanding, but also help to create and sustain conditions for improved practice within my school (Gunter, 2005; Harris, 2002; Ministry, 2008b; Robinson et al., 2009; Timperley et al., 2007). Although the research for this study did not include the organisation in which I work directly, as a result of my involvement in educational leadership, the research study aims and questions were:

Aim 1: To examine understandings of teaching as inquiry and how this aligns with espoused systems and practices in primary schools.

Aim 2: To examine the subsequent challenges that primary school leaders and teachers face when implementing inquiry based practices.

### **Research Questions**

1. How is the practice of teaching as inquiry understood in primary schools?
2. How do the espoused systems of promoting and sustaining teaching as inquiry align with teacher practice and external requirements?
3. What challenges do primary school leaders and teachers face when implementing inquiry based practices?

### **THE THESIS OUTLINE**

This thesis is divided into seven chapters that each deal with a different aspect of the research study and are organised as follows:

Chapter two presents the body of literature relevant to the study. Three central components that frame the concept of teaching as inquiry are examined. These include defining teaching as inquiry as an effective pedagogy, professional inquiry as a vehicle for professional learning and development and inquiry as a mechanism to enable school improvement through leadership activity that establishes the conditions for organisational learning. The chapter concludes with a section on leadership for learning activity that impacts on the contextual conditions in which teachers work.

Chapter three outlines the research design, the methods used, sampling and data analysis employed in the study. It outlines and justifies a qualitative approach and also addresses the issues of validity and reliability along with examining ethical issues.

Chapter four introduces the findings from the first phase of data collection that relates to the wider context in which teaching as inquiry occurs. Specifically this chapter provides analysis from official documentation, namely the Kiwi Leadership for Principals Strategy, the Professional Standards for Principals and the Registered Teacher Criteria. These documents along with the findings from the base-line questionnaire provide the context and preliminary influences on leadership decisions prior to investigating the three school case studies.

Chapter five contains findings from the second phase of research involving the three case schools. The chapter examines the understandings, systems and challenges in each location and draws upon some cross case findings also. Chapter six contains a discussion of the findings from chapters four and five in relation to the literature presented in chapter two.

Chapter seven examines the conclusions from the study and presents a diagrammatic illustration for understanding and implementing the concept of teaching as inquiry within schools. The limitations of the research study are outlined along with recommendations for practice and possible future research investigations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **INTRODUCTION**

This literature review chapter is organised in three sections examining three central components that frame the concept of teaching as inquiry. The first of these centres on literature related to defining teaching as inquiry. It begins with asserting that for many years educators in different contexts have investigated practice using a variety of methods that include aspects of what is known in the NZC as teaching as inquiry; and it will provide evidence of several contexts where the Ministry of Education has used an inquiry model as a vehicle for effective pedagogy. The second, examines teaching as inquiry as a vehicle for teacher professional learning and development. It considers the new teacher registration criteria and its emphasis on quality teaching practice in which inquiry is present. The third, examines literature pertaining to teaching as inquiry as a vehicle for school improvement, primarily focusing on the literature on organisation learning in which creating a professional learning environment is vital. Following the three concepts, a small section on the literature around leadership for learning is presented to reveal the implications for leadership activity that can promote a culture of inquiry within a school context. The connections between these sections will reveal the importance of leaders to establish the contextual conditions to enable teaching as inquiry to occur through the effective use of data as part of the evidence-informed decision making process; promoting formative assessment practices; learning conversations; sustainability; and accountability as interweaving sub-themes in the literature on teaching as inquiry, and inform the basis of this research study.

## **TEACHING AS INQUIRY: DEFINING AN EFFECTIVE PEDAGOGY**

Effective pedagogy is described in the NZC as “teacher actions promoting student learning” (Ministry, 2007, p.34), of which one means is teaching as inquiry. Effective pedagogy in the NZC puts the teacher as the central agent for change in student outcomes, therefore effective teaching is paramount and teaching as inquiry is a vehicle in which teacher effectiveness can impact on student outcomes (Harris, 2002; Hattie, 2003, 2009; Ministry, 2007). Earl (2007) states “many factors influence student learning, but it is increasingly clear that what teachers know and are able to do is one of the most important” (cited in Timperley et al., 2007, p. vii). Hattie (2009) argues that learning and teaching should be visible for students by teachers employing effective teaching strategies; formative assessment practices and the ability of teachers to investigate their own practice certainly contribute to positive student outcomes. The presence of teaching as inquiry, as a model of effective pedagogy in the NZC is therefore significant as a vehicle for raising teacher and student outcomes.

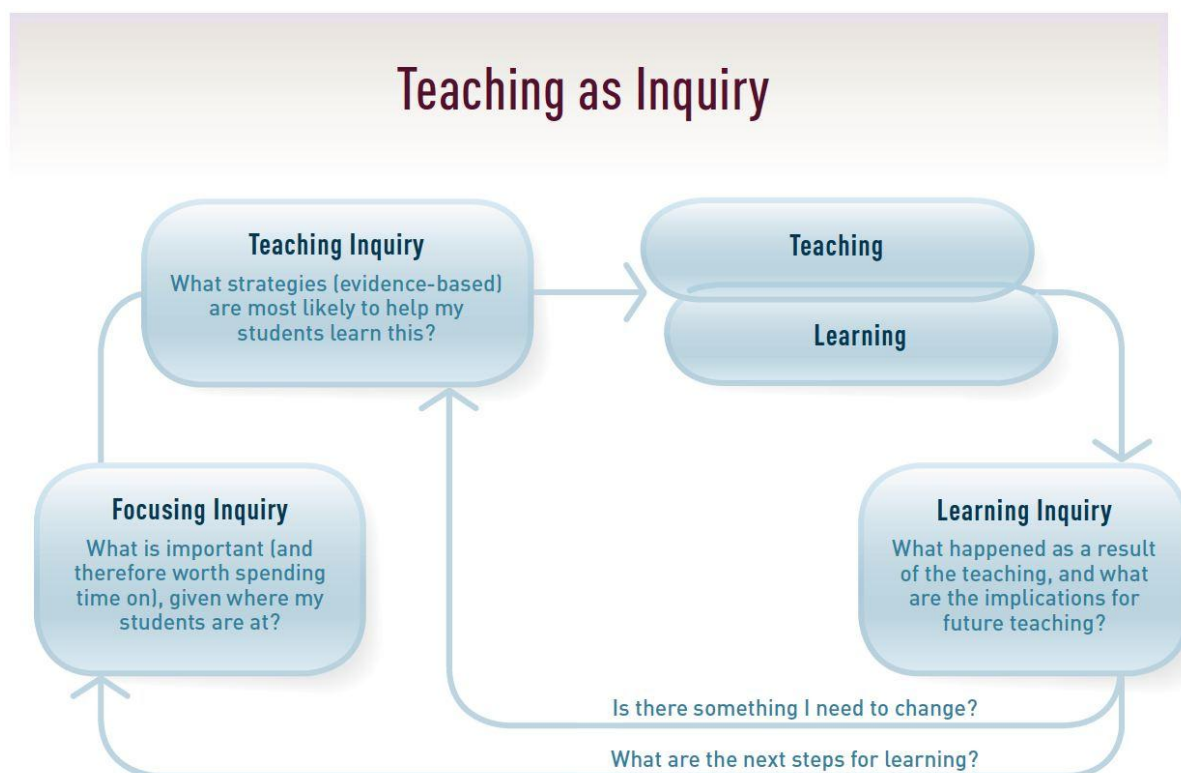
Teaching as inquiry is a practice that is not new. As early as 1933 with the work of Dewey (1933, 1958, cited in Reid, 2004, p. 7) on reflective practice, to the later part of the 20<sup>th</sup> Century and recent decades, educators have inquired into their practice (and that of others) under the forms of action-research, problem-based methodology, reflective practice, teacher inquirer, ‘inquiry as stance’ and collaborative learning to varying degrees of different manifestations (Cardno, 2007; Cochran-Smith & Lytle, 1993, 2009; Gordon, 2004; Harris, 2002; Meredith 2007; Piggot-Irvine, 2006; Robinson and Lai, 2006). What is important and similar to several of these methods is that teaching as inquiry requires the educator to take action, and not simply reflect on practice (Aitken, n.d.). The underlying feature in these methods is that models of inquiry are systematic and continuous (Senge, Cambron-McCabe, Lucas, Smith, Dutton & Kleiner, 2000). Many research investigations over this time have been carried out by external researchers looking into the school setting, however increasingly there has been a shift to teacher-researchers investigating their own practice, and that of their school organisation (Cochran-Smith & Lytle, 1993; Robinson, Hohepa & Lloyd, 2009).



Gordon (2004) defines inquiry as “a systematic search for knowledge and truth” (p. 71). Earl and Timperley (2008) discuss the disposition of employing an inquiry habit of mind as “an ongoing process of using evidence to make decisions” (p. 4). While Aitken (n.d.) goes further to incorporate the symbiotic role of teacher and student learning by asserting “teaching effectiveness is determined by the quality of inquiry into the relationship between teacher actions and student learning” (p. 9). According to Hattie (2009) relationships between the teacher and student have a strong effect size ( $d=0.72$ ) on student outcomes. In the presence of effective relationships, Hattie (2009) states “there is more engagement, more respect of self and others, there are fewer resistant behaviours... and there are higher achievement outcomes” (p. 119). In the research of Hattie (2009) a notable effect of quality teaching on student outcomes ( $d=1.09$ ) is when “teachers tested hypotheses about the effects of their teaching” (p. 117). This is an important component of the model of teaching as inquiry. Conner and Greenwood (2008) affirm that when teachers actively consider and reflect on the needs of their students “they develop approaches and pedagogies that are more appropriate for the students they teach” (p.66). This individual reflection should be extended to the wider school organisation and the extent to which teaching as inquiry is considered as “a way of being” (Ministry, 2008b, p. 43). This would rely on leaders to develop a culture of inquiry. Robinson and Lai (2006) align their definition of a culture of inquiry to the research work of Toole and Seashore Louis (2002) as “a school-wide culture that makes collaboration expected, inclusive, genuine, ongoing, and focused on critically examining practice to improve student outcomes” (cited in Robinson and Lai, 2006, p. 198).

Teaching as inquiry in the NZC places emphasis on teachers prioritising what and how they teach, based on the needs of their students and making evidence-informed decisions about strategies that are most likely to work in meeting those needs, then verifying how students responded to the teaching. It is important because teaching strategies work differently for different students (Clarke, Timperley & Hattie, 2003; Ministry, 2007; Timperley & Parr, 2004; Timperley et al., 2007). In the NZC, the teaching as inquiry model

involves three key parts: the focusing inquiry, teaching inquiry, and the learning inquiry, displayed in Figure 2.1. This requires teachers to deliberately and systematically inquire into the effectiveness of the teaching-learning relationship in their context. The NZC pedagogy section is based on the research of Aitken and Sinnema (2008) and their influence on the teaching as inquiry model presented in the NZC is discussed later in this section.



*Figure 2.1: The NZC Teaching as Inquiry Model*

*Source: Ministry, 2007, p. 35*

There are other models of inquiry in Ministry documents that have been developed during the publication of the NZC (and since) which reflect similar attributes of the NZC model of teaching as inquiry. The Ministry programmes of Iterative Best Evidence Synthesis (BES) are intended to be a mechanism for systemic development and sustainable improvement in education. They are written by New Zealand researchers to reinforce the evidence base that contributes to policy-making and practice in New Zealand (Moore, 2006). There are two BES that contain models of inquiry.

The first depicted in the BES on *teacher professional learning and development* (Timperley et al. 2007) and depicted in Figure 2.2 describes a “sequence of inquiries that combine the elements into a co- and self-regulatory learning cycle” (p. xii). The importance here recognises that teachers are required to not only reflect on their own, to create meaning and understanding of teacher knowledge and practice; but to further deepen their understanding through interacting with others to co-construct an understanding to help the inquiry.

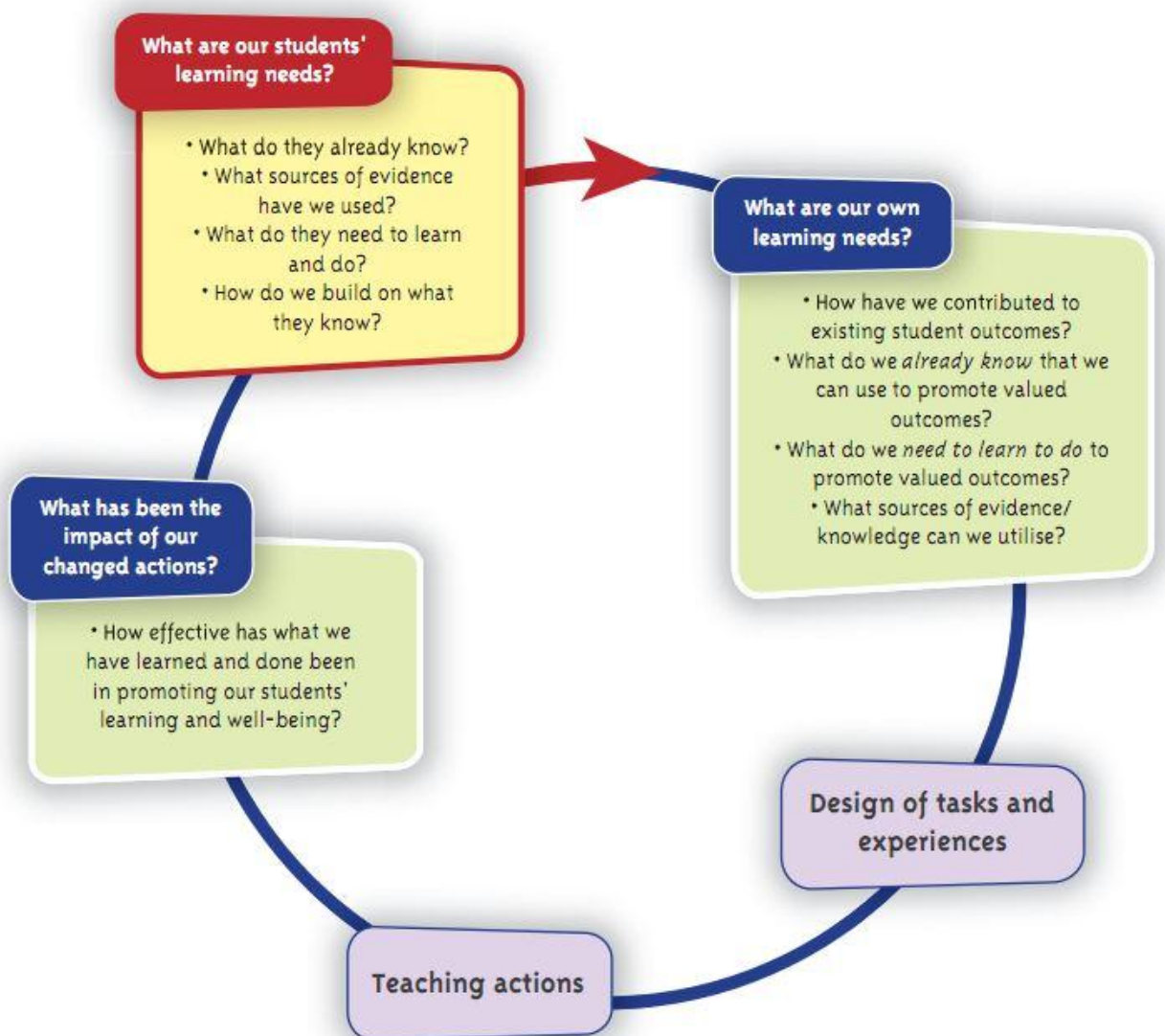


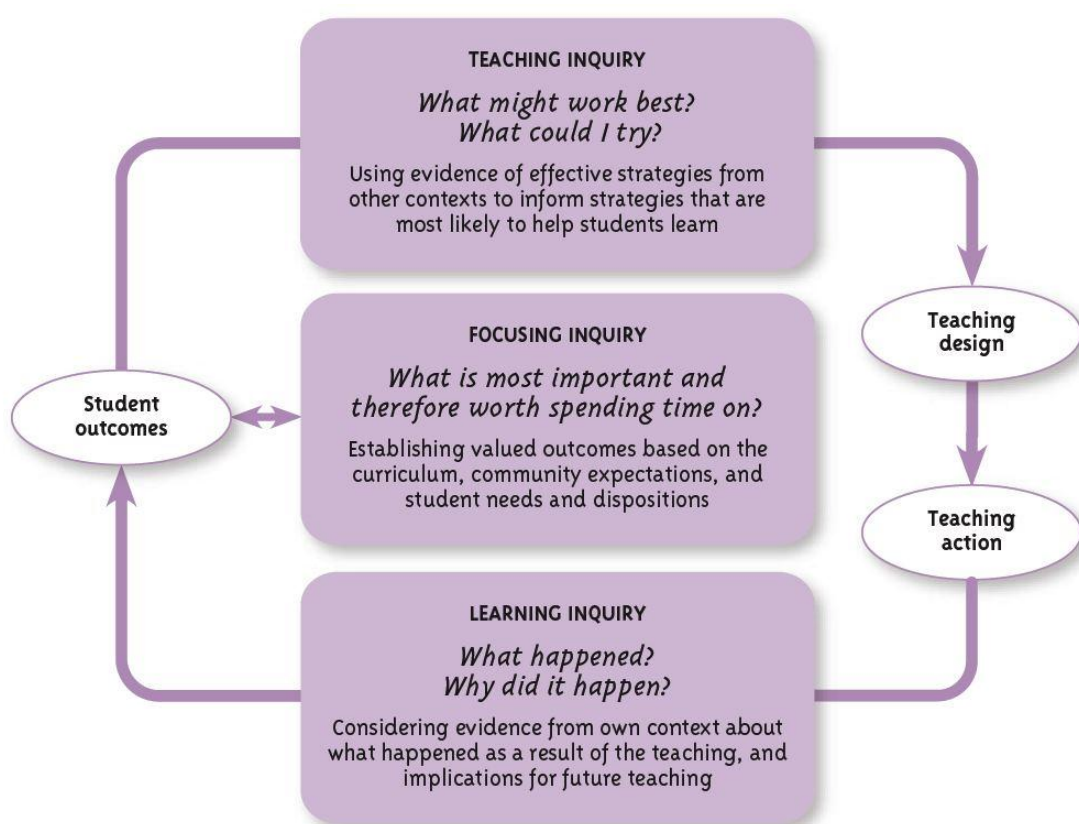
Figure 2.2: Teacher inquiry and knowledge-building cycle to promote valued student outcomes

Source: Timperley, Wilson, Barrar & Fung, 2007, p. xiii

The first inquiry dimension in this model looks at the student learning needs and can be likened to 'focusing inquiry' in the NZC model. This is where the teacher is expected to use assessment knowledge and a variety of assessment tools to establish what the needs of the student are. Planning for teaching then becomes based on data and evidence to inform and target the student needs. The second stage in this inquiry looks at the teacher needs, which can be likened to the 'teaching inquiry' part of the NZC model. Here teachers are recommended to use more than evidence-informed planning and to reflect and collaborate with other staff and the students to inquire into what practices they have and can employ that have contributed to the current student outcomes and to what extent they understand current research and pedagogy to improve practice. The third stage in this inquiry can be likened to the 'learning inquiry' component of the NZC model where the effectiveness of planned teacher action to improve student outcomes has had an impact. What is imperative to note in this BES is the underlying assumption that for "inquiry to be effective it needs to occur at three inter-related and parallel levels: student, teacher and organisation" (Timperley et al., 2007, p. xii). This interdependent relationship is missing from the NZC descriptor of its model of teaching as inquiry; which is critical because to foster and sustain a culture of inquiry across the school "teachers are unlikely to engage in these inquiry processes unless they have the organisational conditions and support to do so" (Timperley et al., 2007, p. xiii). Students, teachers and leaders all have a role in developing a culture of inquiry.

The second inquiry model is depicted in the BES on *effective pedagogy in social sciences: tikanga ā iwi* (Figure 2.3), which describes teacher inquiry as a model in which "teachers inquire into the impact of their actions on their students and into interventions that might enhance student outcomes" (Aitken & Sinnema, 2008, p. 52). It contains the same three inquiry dimensions as the NZC model (focussing inquiry, teaching inquiry, and learning inquiry) however the model separates student outcomes from the three main dimensions; which is interesting to note because in the Timperley et al. (2007) model and the NZC model, the student needs are embedded in the three stages. The descriptors of each of the three main dimensions in each model

are comparative, though in this model they are more simplistic and perhaps easier to understand, this may be in part because Aitken and Sinnema are the authors of the NZC model which was published before this model. The location of the focusing inquiry in the centre of the diagram places this dimension as a focal point and the start of the inquiry process; by deciding what is worthwhile to spend time on based on not only student outcomes but what has been considered valuable by the schooling community. What is apparent in teacher inquiry across all three models is not how teachers work with their students but how teachers think about their work with students (Robinson et al., 2009).



*Figure 2.3: Teaching as inquiry: a model of evidenced informed pedagogy*  
 Source: Aitken & Sinnema, 2008, p.53

Teaching as inquiry has been a method endorsed over the last decade by the Ministry not only in the BES research projects, but in several Ministry contracts to support school improvement in student outcomes; primarily in the Literacy Professional Development Project, the Assessment for Learning strategy (AfL), the Numeracy Project, and Te Kotahitanga project. Each of

these contracts involved external facilitators working in schools to develop the capacity of both school leaders and teachers. Building the internal capacity of staff and leaders has sustainable long term outcomes for school improvement to be maintained in the longer term (Harris, 2003; Hopkins & Jackson, 2003; Timperley et al., 2007). Ministry contracts are typically based on research that is suitable to meet Ministry aims and promote current best practice, often forming parts of research for further Ministry projects. Furthermore several existing Ministry strategies include elements of teachers and leaders inquiring into practice: Ka Hikitia: Managing for Success, The Pasifika Education Plan, the NZ Disability Strategy and particularly the Information and Communication Technology Professional Development (ICTPD) Strategy.

Stoll, Fink, and Earl (2003) view inquiry as a tool for improving a school's capacity for learning stating "when teachers inquire, they learn, and not always the things they expected or wanted to know" (p. 49). Stoll, Fink, and Earl (2003) emphasise the need to reserve assumptions and be open to new ideas, to gather the essential information, and to question and challenge beliefs and perceptions. Senge et al. (2000) also claim a link between schools that learn and schools that use inquiry, which they describe as "thoughtful, reflective and informed deliberation about one's practice" (p. 285). The value of dialogue and skilful discussion as tools for team learning become increasingly evident in schools that learn (Senge et al., 2000). Several authors (Cardno, 2007; Earl & Timperley, 2008; Hattie, 2007; Robinson & Lai, 2006) also stress the importance of dialogue and feedback as a tool for inquiring into an individual's practice to gain a deeper understanding of a current situation for development. Effective dialogue, including feedback, is needed to inquire and enact teacher professional learning and ultimately the school's capacity for sustaining improvement. However, educators in schools need to be mindful of the political context in which teaching as inquiry has been included into the agenda of school improvement.

On the one hand, it seems positive that teaching as inquiry has been included in the revised NZC as a model of effective pedagogy to bridge the theory and rhetoric of providing sustainable "local solutions to local problems" (Johnson, 2004, p. 284), and to shift leadership practice from the increased

managerialism that education reforms over the last two decades have created to a focus on teaching and learning (Ball, 2004; Codd, 2005; Fitzgerald, 2008). On the other hand, it could appear that teaching as inquiry is being used as a school improvement initiative that has been imposed by the Ministry to ensure the performativity of schools and teachers (Ball, 2004). Complex issues then arise of accountability, ownership, control, intensification of workload and professionalism (Ball, 2004; Codd, 2005; Johnson 2004) that then need to be addressed by school leaders and teachers, “what is produced is a state of conscious and permanent visibility (or visibilities) at the intersection of government, organisation and self-formation” (Ball, 2004, p. 145) that are cognisant of the “priorities, constraints and climate set by the policy environment” at a local and national level (Ball, 2004, p.148). According to Fitzgerald (2008) performance management policies and practices implemented by schools is an extension of the “level of surveillance and public regulation [*which*] was required to ensure that they [*schools and teachers*] were acting in expected ways” (p. 114). The surveillance factor by external agencies of the State, namely the ERO and the Teachers’ Council are set to design and audit that the NZC and the Registered Teachers’ Criteria are being implemented in ways that meet the intent and requirements of such documents. This external environment creates challenges and tensions for school leaders and teachers which leads me to discuss the second concept in this literature review for teaching as inquiry in relation to building teacher knowledge and accountability.

## **TEACHING AS INQUIRY: TEACHER PROFESSIONAL LEARNING AND DEVELOPMENT**

Teaching as inquiry enables teachers to improve practice by developing teacher knowledge and capacity to make judgements about their own practice (Harris, 2002). Benade (2008) comments that “the NZC calls on teachers to educate their students to be self-reflective, which implies that teachers too are required to be self-reflective” (p. 101). Therefore, if teachers are expected to adopt teaching as inquiry as a professional way of being, and engage in a process of inquiry as described in the NZC teaching as inquiry model they

might able to be self-reflective to utilise their own professional learning and development; however the right conditions need to be established in order for this to occur.

The *Leadership and Teacher Professional Learning and Development* BES, both discuss the vital role that school leaders have to “create and sustain the conditions for ongoing, outcomes-focused professional inquiry and learning in schools” (Alton-Lee, 2008, p. 3). This is supported by Timperley et al. (2007) who state “professional learning is strongly shaped by the context in which the teacher practices” (p. 6). School leaders employing teaching as inquiry, as an effective pedagogy have the ability to enhance teacher knowledge and performance and ultimately the student and school will prevail (Senge et al. 2000). Harris (2002) forms the opinion that engaging teachers with inquiry processes, where “inquiry and reflection are expected of teachers as part of their professional learning and development” (p. 104) is the responsibility of the school leaders. If schools have a culture in which teaching as inquiry can be effectively employed then the reciprocal benefits for all in the learning organisation will be apparent. Senge et al. (2000) equates the progression of learning starting with the individual as an organic process because it grows, spreads and develops through the school creating change; the underlying principle being if learning starts small it is more likely to become a sustainable practice across the school. Therefore school leaders could consider using professional inquiry as part of the school’s performance management system and develop procedures to promote inquiry in the appraisal of teachers (Sinnema, 2005).

The New Zealand Teachers Council (NZTC) has considered the research of Sinnema (2005) in the implementation process of the new Registered Teacher Criteria (NZTC, 2010) and has provided a chapter from her doctoral thesis to highlight the need for school leaders to consider using an inquiry-based process for teacher appraisal in their workshop resources. Sinnema (2005) argues that if teacher appraisal included an inquiry focus for teachers related to student learning, evidence of the connections between teachers’ practice and students’ learning would be apparent and therefore the nature of teachers reflecting and inquiry into their practice could increase teacher



effectiveness. This would require leaders set the conditions for staff to fully understand the inquiry process as one that enables learning not only for the individual teacher but increases the organisations' effectiveness in the core business of raising student outcomes. Leaders would have to ensure that teacher appraisal goals would have specific goals related to raising student outcomes and therefore evidence would be able to be cited from the ensuing appraisal observation and dialogue in that "appraisal discussions should not only inquire into the impact of teaching on student learning, but also engage appraisers and appraisees in the analysis of student achievement data" (Sinnema, 2005, p. 19). There could be an assumption that student learning is equated to achievement data, however Sinnema (2005) also acknowledges that there are variables in the complex nature between teaching and student learning and calls for a professional perspective for appraisal for learning purposes. Sinnema (2005) asserts "a professional perspective that values formative appraisal for professional growth is far better placed to address complexity, than summative appraisal that aims to manage and judge" (p. 24). The BES on *Teacher Professional Learning and Development* indicates that where there are evidenced-informed practices in schools for teachers, leaders and professional learning communities to make decisions using student achievement data as a means for improvement there is more likely to be sustainability of practices and achievement in the organisation (Timperley et al., 2007). This evidence-informed approach assumes that teachers and leaders may already be literate in data interpretation, taking ownership of results and inquiring into solutions to raise outcomes. However, these are complex tasks for leaders and teachers that require professional learning and engagement over time in the presence of the right contextual conditions.

Teaching as inquiry in the three models presented in this literature review, requires teachers to be co- and self-regulatory. This disposition is a requirement for all teachers in the Registered Teacher Criteria (RTC) in criteria 12: "use critical inquiry and problem-solving effectively in their professional practice" (NZTC, 2010, p. 14). Although developing an inquiry mind-set is evident in other parts of the RTC, teachers will have to provide evidence that they have developed their professional knowledge in practice

through using critical inquiry. Therefore, if teachers understood and valued the underlying principles of professional inquiry, I argue that using the NZC model of teaching as inquiry or a similar professional inquiry process could guide teachers into how to do this. In order for a teacher to become registered from 2011 the new criteria (of which there are 12 criteria) need to be attested against. Inherent in the twelve criteria are the qualities for effective teaching and current best practice that all teachers are expected to know and do in order to be successful practitioners. This may require teachers to discuss with senior leaders how they:

- I. Systematically and critically engage with evidence and professional literature to reflect on and refine practice.
- II. Respond professionally to feedback from members of their learning community.
- III. Critically examine their own beliefs, including cultural beliefs, and how they impact on their professional practice and the achievement of ākonga.

(NZTC, 2010, p. 14)

This assumes that teachers already engage in teaching as inquiry processes and are open to receiving critical feedback on their practice in order to reflect on their ability to impact on student outcomes. This could create tensions for some leaders to quickly implement processes that take time to develop and nurture, and challenge some teachers if they have not been exposed to the cultural conditions that are conducive for professional inquiry to occur.

The RTC has taken into account the latest research evidence primarily from the *Teacher Professional Learning and Development* BES. It is clear that teachers have to show evidence that they not only investigate their own practice but contribute and belong to a learning community. Several authors (Ministry, 2008b; Timperley & Parr, 2004) claim that working as part of a professional development learning community helps focus attention on shared purpose and the goals that lead to school improvement. Therefore, linking back with the notion that inquiry needs to happen on parallel levels throughout the school (individual, team, school wide).

Gordon (2004) and Harris (2002) both discuss that working collaboratively not only reduces the sense of isolation many teachers feel but it also enhances the quality of work produced. However, Harris (2002) also cautions that although collaboration is important, without reflection and inquiry it is “little more than working collegially” (p. 103). Through engaging in learning conversations with others, teachers have to justify their thoughts and ideas making them accountable to the practices they employ (Cardno, 2007; Earl & Timperley, 2008; Robinson & Lai, 2006). Providing evidence that teachers have achieved the RTC is also a measure of accountability. The dialogue and reflection exposed throughout the teaching as inquiry model infuses the concepts of effective pedagogy: feedback, evidence-based decision making, reflective practice, professional learning, accountability, and sustainable change in order to have improved outcomes for teachers, students and the school.

In light of such external requirements, Fitzgerald (2008) argues that in NZ schools “performance management, professional development, competency and teacher registration are inextricably linked” (p. 116). A key issue could now be that teaching as inquiry is being manoeuvred towards a tool for performance related policy linked to achievement data and away from being embedded in pedagogy. The environment for teachers could then become one of a performative policy culture rather than a professional culture that values teachers’ expertise and gives rise to the notion of “teachers as managed professionals” (Codd, 2005, p. 202). The inclusion of critical inquiry in the RTC, assumes that teachers will be engaged in teaching as inquiry processes as a form of effective pedagogy and through the performance management process of the school, ensures that the State mandate of teaching as inquiry is included as part of a control and surveillance culture (Fitzgerald, 2008). Furthermore, Fitzgerald (2008) discusses that a culture of control and surveillance can erode trust in an organisation and the teaching profession. This leads me to the third concept of organisational learning, to build a culture of inquiry that could empower leaders and teachers to take control of their environment and build relational trust in order to reconnect the power of professionalism to pedagogical relationships (Fitzgerald, 2008).

## **TEACHING AS INQUIRY: A MECHANISM FOR SUSTAINED SCHOOL IMPROVEMENT THROUGH LEADERS CREATING ORGANISATIONAL LEARNING**

Teaching as Inquiry can be a mechanism for a school to sustain improvement through viewing the school as a learning organisation. Organisational learning is a field of knowledge inside organisational theory that looks at models and theories about the way an organisation learns and adapts. I draw on the field of organisation learning to address the complexity and challenges that are relevant in relation to understanding teaching as inquiry at a dual level: 1) the individual learning level; and 2) that of the school organisational level, adapting and adjusting with implementing change.

Argyris (1977) defines organisational learning as “a process of detecting and correcting error. Error is for our purposes any feature of knowledge or knowing that inhibits learning” (p. 116). Several authors (Argyris, 1977; Boreham & Morgan, 2004; Dick & Dalmau, 1999; Senge et al., 2000; Sun & Scott, 2003) comment that a key aspect of organisational learning is the interaction that takes place among individuals. Sun and Scott (2003) postulate that organisational learning “is the learning process used in the organisation. It deals with the question of how individuals in the organisation learn” (p. 204). Their work also discusses the concept of a similar term, “learning organisation” often used interchangeably with organisational learning, however there are distinct differences between the two (Sun & Scott, 2003, p. 202). Their concept of a learning organisation relates more to a “prescriptive stream with a strong practical focus” (p. 202), with the key distinction here is that organisational learning is an ideal state. Using this definition, developing a culture of inquiry could be seen as organisational learning; whilst the teaching as inquiry model aligns more to the concept of a learning organisation as described by Sun and Scott (2003) because of the ‘strong practical’ nature of the teaching as inquiry process.

Capturing individual learning is the first step to making it useful to an organisation. A learning organisation does not rely on a reactive or ad hoc process in the hope that organisational learning will take place through

chance or as a by-product of normal work. Transferring knowledge requires that it be accessible to everyone when and where they need it. Therefore, shifting from individual to organisational learning involves a non-linear process; to understand how this can be done we must firstly understand how to overcome barriers to learning.

The greatest barrier to organisational learning is the condition of defensiveness that closes down learning. In order to fully understand how an organisation learns it is timely to investigate how understanding a 'theory of action' approach can help to promote effectiveness across the organisation by identifying and adopting productive conversations to promote double loop learning, and thus build organisational effectiveness and learning. The use of 'theories of action' is a strategy for increasing the skills and confidence of individuals in groups to create an effective organisation and to foster long-term individual and group success. Theories of action are the inherent strategies that people use to design and carry out their actions. These are the governing variables, values, beliefs, attitudes, routines or skills that underlie actions (Argyris, 1977). There are two kinds of theories of action proposed by Argyris (1977). Espoused theories are those that an individual claims to follow. Theories-in-use are those that can be inferred from action. It is sometimes articulated in the cliché, "Do as I say, not as I do." However, the difference between espoused theory and theory-in-use goes further than this ordinary notion. Theories-in-use can be made clear by reflecting on action.

Dick and Dalmau (1999) interpret these theories in a slightly different way, based on self-awareness. They promote that espoused theories are those that we know about; theories-in-use are more likely to be unknown to ourselves. Individuals need to learn how to detect and correct mismatches or errors in ways which will change their underlying governing values and consequently change their actions, that is their strategies used for solving problems with others. When individuals are able to do this, they ultimately reduce ineffectiveness (for themselves and subsequently the organisation) and their actions certainly involve moving from using Model 1 to using Model 2 in resolving difficult problems; this is where the model of teaching as inquiry can be employed.

Model 1, theory-in-use is related to defensive reasoning and is concerned with blocking information which we personally feel will create unpleasantness or lessen our control of a situation. When an individual acts using Model 1, the guiding values that control actions are: 1) win, don't lose; 2) avoid unpleasantness; 3) maintain control. We do this by displaying the following behaviours: 1) not checking our assumptions; 2) giving indirect or mixed messages; 3) protecting self and others; 4) not explaining reasoning; and 5) using questioning to control the confrontation (Cardno, 1998). Model 1 involves single-loop learning processes: which are practices that hamper the individual from experiencing embarrassment or threat and prevents them from identifying, reducing, and correcting the causes of the embarrassment or threat. Model 1 is the area of anti-learning behaviour for an organisation or an individual. Single-loop learning and defensive reasoning processes produce mixed messages. However, in caring for and respecting others, criticism gets withheld. By avoiding conflict, the individual consistently fails to deal with difficult issues. As Model 1 processes do not activate Model 2 theories-in-use, they reduce the possibility of learning (Dick & Dalmau, 1999).

Model 2, theory-in-use is related to productive reasoning and is concerned with generating information in an effort to increase the possibility of surfacing and dealing with conflict. When using Model 2, the guiding values that control actions are: 1) seek and give valid information; 2) share control and solutions; and 3) monitor solutions jointly. We do this by displaying the following behaviours: 1) checking our assumptions and the assumptions of others; 2) being forthright and honest; 3) disclosing reasoning; and 4) asking questions as genuine inquiry (Cardno, 1998, p.3). Model 2's main trait is double-loop learning, a productive reasoning process that requires minor interpersonal defensiveness (Dick & Dalmau, 1999). Wide gaps exist between espoused theories and theories-in-use and effective employment of Model 2 strategies is required to help minimise the gaps (Sun and Scott, 2003). Model 2 is dependent on the use of usable knowledge, evidence based anecdotal information. Effective organisational learning requires a reduction in the gap between espoused theories and theories-in-use. Robinson and Lai (2006) postulate that "theories that people claim to be using and the theories that are

actually determining behaviour may not be the same” (p. 26). To decrease these gaps involves increasing the skills an individual has to inquire into the inferences people make in reasoning about problems; such problems in the school context invariably involves quality teaching and raising student outcomes; particularly how leaders (and other teachers) have conversations about these problems with colleagues is important to test assumptions and build shared understandings, reflecting a culture of inquiry in the organisation.

Reasoning forms the basis of our beliefs, attitudes or actions in that it explains or accounts using the evidence base revealed. Individuals reason as they advocate a position or reach conclusions about events. Therefore, reasoning occurs when attributing causes to actions or when evaluating oneself or others. Piggot-Irvine (2003) believes reasoning “involves a balancing act between the two predominant features of advocacy and inquiry” (p. 5). Several authors (Cardno, 2007; Robinson and Lai, 2006; Senge et al., 2000) have developed practical tools to engage productive reasoning (Model 2) strategies, primarily in the use of learning conversations, which is a significant feature for teaching as inquiry (at an individual self-reflective level, as well as a teacher contributing at a wider collective level); as a result enabling improved teacher knowledge and judgements and therefore to the self-directed improvement in teacher practice (Harris, 2002).

## **THE LEADERSHIP FOR LEARNING CONTEXT**

The inclusion of the teaching as inquiry model in the NZC as an important aspect of effective pedagogy focuses leaders’ attention to a school’s core business; raising student outcomes, with a particular emphasis on ensuring effective teaching and learning relationships (Aitken & Sinnema, 2008; Ministry, 2007; Robinson et al., 2009; Timperley et al., 2008). The three previous subsections have all discussed that the context in which teachers work is vital in whether they adopt teaching as inquiry and has asserted that leaders need to create the conditions for a culture of inquiry to occur. The implications for leadership are complex because leaders need to ensure that teaching as inquiry is included within several contextual layers. Firstly, within the policy context, leaders are expected to ensure the inclusion of inquiry in

charter documentation, strategic and annual planning and performance management policy. Secondly, within a managerial context, leaders are expected to ensure teaching as inquiry is occurring within their organisation through developing and sustaining systems to promote a culture of inquiry, where the appraisal system reflects inquiry. Finally, within the teacher context, where teachers are expected to practice in a culture of inquiry – where they have ownership irrespective of it being mandatory.

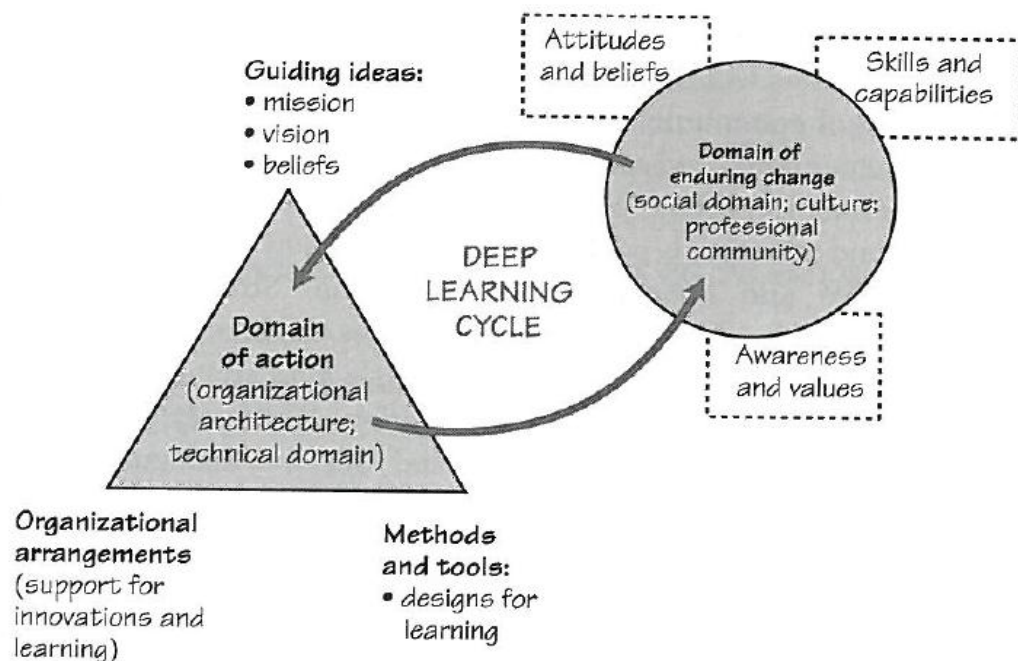
Reid (2004) discusses that employing inquiry helps those in education confront issues that are increasingly context bound and that leaders and teachers need to “have the capacity to be always deepening their understandings of teaching and learning through reflection and inquiry” (p.3). He promotes that inquiry is a way of professional being and can only occur if the contextual conditions that encourage professional inquiry are present. Several authors (Day, 2011; Gordon, 2004; Reid, 2004; Robinson et al., 2008) postulate that in the presence of an environment of trust where educators can disclose aspects of their practice through conversations that reveal their taken for granted assumptions in the context in which the practice occurs is essential, and that inquiry can occur at an individual and collaborative level in order to inform decision making for action; action to raise student outcomes.

The foundation of the KLP model (Ministry, 2007) has the school context as the bounded system in which an educational leader practices because each school context will have diverse challenges for school leaders that will require leaders to adapt their leadership practices to meet the demands of the specific context (Ministry, 2007). The cultural context of the school needs to be one in which sustainable, continuous improvement and change is embedded. Fullan (2003) discusses the role of a principal in developing school culture as “leading deep cultural change that mobilises the passion and commitment of teachers, parents and others to improve the learning of all students, including closing the achievement gap” (p. 41). The culture of a school is represented in the attitudes, values and skills of its people. Senge et al. (2000) suggests that leaders can influence the culture of their organisation through deliberate action, and created a framework on influencing the culture of a professional community depicted in Figure 2.4. The premise is that a



school's culture is not static and the relationship between the school's organisational structures depicted in the triangle on the left of the diagram and the "intangible but enduring culture and community (the circle on the right) continually coevolve" (Senge et al., 2000, p. 327). They suggest that leaders in high performing school communities influence the domain of culture through direct action in the domain of action through employing the following framework that is noticeable by the leadership actions of:

- Reflective dialogue
- Unity of purpose
- Collective focus on student learning
- Collaboration and norms of sharing
- Openness to improvement
- Deprivatisation of practice and critical review
- Trust and respect
- Renewal of community
- Supportive and knowledgeable leadership



*Figure 2.4: A Deep Learning Cycle: the relationship between an organisation's structure and culture*

*Source: Senge et al., 2000, p.327*

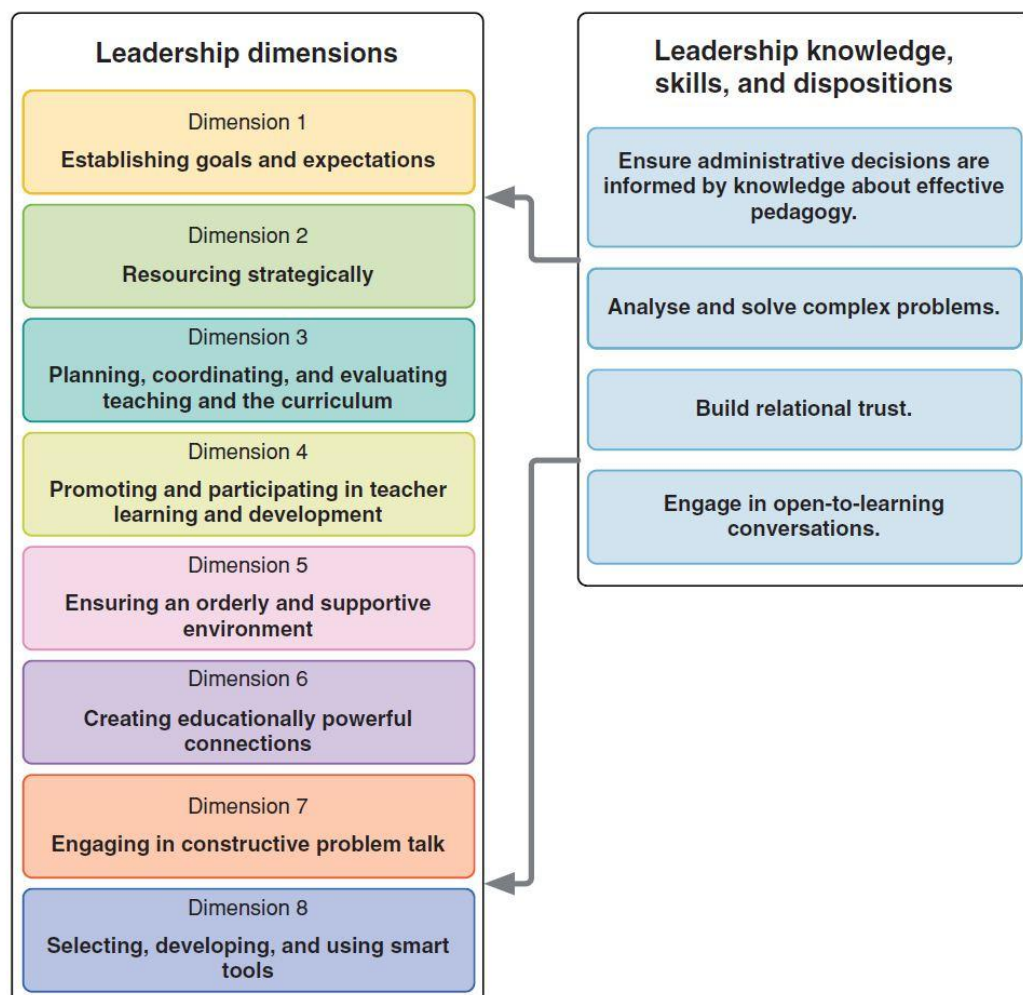
Similarly, MacBeath and Dempster (2009) assert a leadership for learning framework based on their qualitative study of twenty-four schools across seven countries. Their framework foundation for school leadership echoes thoughts expressed by several authors (Reid, 2004; Senge et al., 2000) that school “context and culture matter and that school leadership is intrinsically bound by time and place” (MacBeath & Dempster, 2009, p.1). They argue that leadership and learning are “conceptualised as activities both of which inform each other” (p. 178). To summarise, their framework has five principles that leadership for learning needs to consider:

1. A focus on learning
2. An environment for learning
3. A learning dialogue
4. Shared leadership
5. Accountability; internal and external

In the context of teaching as inquiry this framework could be used by leaders to raise staff agency in the change process and in understanding teaching as inquiry as both a cycle of learning and as a professional way of being. A shared understanding with staff can promote internal accountability which “rests on mutual trust and a strong sense of collegiality” (MacBeath & Dempster, 2009, p.183).

The *School Leadership and Student Outcomes* BES (Robinson et al., 2009) states that the actions of leaders mostly “impact indirectly on student outcomes by creating the conditions under which teachers – who have a much more direct influence – are able to be effective” (p.73). Figure 2.5 shows the findings of this BES of the dimensions from direct and indirect evidence that make a difference to student outcomes; each dimension is characterised by a set of broad leadership practices, along with four leadership knowledge, skills and dispositions (KSDs) that enable practice across these dimensions. The first five dimensions have been proven to have a direct impact on student outcomes with dimensions six, seven and eight having an indirect impact. Characteristic of the leadership activities inclusive of the three dimensions of indirect impact are the following six leadership

activities that have been proven to make an indirect difference: a) setting educational goals; b) obtaining and allocating resources aligned to pedagogical goals; c) creating educationally powerful connections; d) creating a community that learns how to improve student success; e) engaging in constructive problem talk; and f) selecting, developing, and using smart tools (Robinson et al.,2009). The implication then for leaders reveals the complex nature of developing a culture of inquiry. It espouses that if leaders display such KSDs then effective operations and learning in each of the dimensions will occur. In practice this may take more time for leaders to establish because of the challenges and tensions inherent in building relationships and trust, and for staff to engage in conversations that move beyond compliance to a way of being.



*Figure 2.5: The dimensions of effective leadership, together with the associated leadership knowledge, skills, and dispositions*

*Source: Robinson et al, 2009, p.49*

Implicit in the three frameworks presented in this subsection is a focus on leadership for learning. There are clear similarities in the types of leadership actions that are needed to ensure that the school context is beneficial to a culture of inquiry: building relational trust, creating a professional learning community, engaging in learning conversations, using evidence to inform actions, collective responsibility of learning and leadership, and a mind-set of improvement/inquiry.

Furthermore, two current New Zealand reports published findings regarding teaching as inquiry: 1) the Monitoring and Evaluating Curriculum Implementation (MECI) report (Sinnema, 2011) to the Ministry discussed the progress schools had made in the first two years of implementing the NZC from 2008 and 2009; and 2) Directions for learning: the New Zealand Curriculum Principles, and Teaching as Inquiry (ERO, 2011) which reviewed the curriculum development in schools since the NZC became mandatory in 2010. Each report while including other aspects of the NZC implementation specifically emphasise teaching as inquiry as a vehicle for sustained improvements in student outcomes, teacher knowledge and practice, and organisational practices; these reports highlight the complexity for leaders when implementing change in their organisation. Datnow (2000) discusses that the process of implementation for school reform where the success of implementation is affected by the “context for how it was introduced” (p. 367); in particular if leaders provided support for new initiatives (e.g. teaching as inquiry) with developing shared understandings and the teaching and learning advantages, rather than blanket mandate the initiative is more likely to have sustained practice and the “reform will endure” (Datnow, 2000, p.367). Both reports assert that a greater understanding of inquiry is needed; specifically the MECI report (Sinnema, 2011) suggests that the actions of leaders need to move “beyond curriculum familiarity or compliance, towards curriculum depth. A focus on depth requires quite different expectations, resourcing and professional learning to a focus on curriculum compliance” (p.76). This supports my argument that a change in mind-set is required of the way that all educators view their professional activity, towards one where inquiry is seen as a way of being. Inquiry as a way of being is also identified in a NZC

update (Ministry, 2011) specifically on teaching as inquiry which summarised the findings of the teaching as inquiry aspects of the Directions for Learning report (ERO, 2011). While it is overt in the curriculum update (Ministry, 2011) that inquiry is a professional way of being, in the Directions for Learning (ERO, 2011) report reference is made to inquiry as a way of being as an educator's disposition and skills in inquiry.

In addition, the MECI report (Sinnema, 2011) identified that contextual factors were recognised as barriers for curriculum implementation and that school leaders need to "create conditions that enable and promote effective curriculum implementation" (p. 77) ; therefore cultural and systematic change needs to be considered within each school, and an inquiry process can help identify and inform such contextual changes. Cultural conditions were addressed also in the Directions for Learning report (ERO, 2011) which stated that the following leader actions were present in schools that had high levels of understanding in teaching as inquiry:

- Establishing inquiry routines (such as regular meetings and ongoing classroom evaluation practice)
- Developing guidelines, expectations and protocols about how groups and teachers should engage in inquiry
- Making information available in forms that teachers could use as part of their inquiry activity
- Conveying the importance of, and modelling, reflective practice
- Creating opportunities, through school systems such as target setting and performance management, for teachers to build their capacities as high quality teachers.

(ERO, 2011, p. 28)

Finally, leaders need to be mindful that because of the "context-specific nature of leadership" (Robinson et al., 2009, p.72) there is no generic remedy for bringing about change in the organisation. Leadership involves influencing new ways of thinking and action in people, either directly (through face-to-face

interactions) or indirectly (be creating the appropriate environment). Cochran-Smith and Lytle (2009) recommend a way forward for leaders is to take an 'inquiry as stance' approach to understand and improve the teaching, learning and leading in their school that positions local knowledge, practitioner relationships and organisational capacity to engage change.

## **CONCLUSION**

In developing a culture of inquiry across a school there is a claimed interdependent improvement in school culture, teacher knowledge and practice, and student outcomes. This chapter has reviewed literature that examines teaching as inquiry, as an aspect of effective pedagogy; as a vehicle for improved teacher outcomes through professional learning and development; and as a mechanism for sustained school improvement through leaders creating organisational learning within their school. A learning organisation (facilitated by leader actions to promote teaching as inquiry) is expected to actively create, capture, transfer, and mobilise knowledge to enable it to adapt to a changing environment. Further investigation into how schools implement the concept of teaching as inquiry is needed to ascertain the presence of this effective pedagogy since the NZC became binding in February 2010, and in light of the current literature. The next chapter will discuss the research methodology and methods used to investigate teaching as inquiry in this research study.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **INTRODUCTION**

This chapter discusses and justifies the choice of a qualitative methodology to investigate the understanding and implementation of teaching as inquiry in primary schools. The selection of schools and decisions made regarding the research methods of a base-line questionnaire, documentary analysis and semi-structured interviews, along with sampling and data analysis were issues that are outlined and explained with reference to the literature base. The concepts of triangulation, reliability and validity are discussed. Finally, ethical considerations pertaining to this study are outlined.

#### **METHODOLOGY**

##### **Overview**

Paradigms determine how knowledge and research are approached and defined. Researchers are guided by particular paradigms and the associated ontological and epistemological beliefs influence their research questions, their choice of research methodology and the methods of data collection and analysis (Davidson & Tolich, 2003; de Landsheere, 1997; Lincoln & Guba, 2005). There are two main paradigms recognised in the research of educational problems called the positivist and interpretive approaches (Bryman, 2008; Davidson & Tolich, 2003; Keeves, 1997). These paradigms illustrate different ways to investigate and study social phenomena and represent “specific clusters of epistemological and ontological commitments” (Bryman, 2008, p. 593).

A positivist, quantitative paradigm values numbers, measurability and logic first and foremost. A researcher employing a positivist approach

adheres to observing and measuring their problem remaining at some distance from the research subjects (Davidson & Tolich, 2003). In contrast, an interpretive, qualitative paradigm values words and is concerned in how its participants view the world, construct meaning and make interpretations to inform their study (Bryman, 2008; Cohen, Manion, & Morrison, 2007). A researcher employing an interpretive approach uses more direct interaction with the research subjects and predominately produces a narrative to compare, contrast, analyse, and interpret data to find patterns and meaning of the research problem and its context (Bryman, 2008).

### **The Research Design and Sample Selection**

This research required a qualitative research design, as this is best for the small sample, where an interpretivist approach allowed a focus to concentrate on “the understanding of the social world through an examination of the interpretation of that world by its participants” (Bryman, 2008, p. 366). Central to the qualitative approach of the research study was the need to research the topic in depth and to draw out rich findings. Denzin and Lincoln (2005) describe qualitative research as “an interpretive, naturalistic approach to the world ... attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (p. 3). As a researcher within the interpretivist paradigm I adopted a constructivist lens, where by meaning is created and co-created through the interactions of the researcher and the participants (Lincoln & Guba, 2005). A constructivist lens also fits alongside my interest in the topic “teaching as inquiry” which requires leaders and teachers to look in-depth at their current context, make meaning and seek ways to improve outcomes. Teaching as inquiry and the systems that enable it to occur in an organisation are action based. It is this action base that aligns my views with a constructivist analysis. This sits well with the research aims and questions where as a researcher I needed to examine the views of participants at different levels in the organisation on the espoused systems leaders use to ensure teaching as inquiry occurs. It is for this reason (perspectives of individuals on the subject to create meaning) that a quantitative research design and methods were not considered, therefore my



qualitative research design can be described as a small scale multiple case study.

Case study methodology is widely used in educational settings because processes, problems and programmes can be studied to draw understandings in order to affect or even improve practice (Merriam, 2009; Yin, 2003). It is the context of the case study that is important. Yin (2003) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p.13). Merriam (2009) also includes boundaries in her definition for a case study as “an in-depth description and analysis of a bounded system” (p. 40). The ‘bounded system’ in this study is the concept of teaching as inquiry which has a dual purpose, while one perspective is to reveal the understandings, the systems and challenges for sustaining and implementing a culture of inquiry in an organisation, the other perspective focuses on the leadership activity. The multiple cases in this study refer to the three research locations.

The small sample of this research study suited the parameters of a multiple case study methodology. Purposive sampling was employed for both the base-line questionnaire and school selection. Purposive sampling is not random and Bryman (2008) discusses that “the goal of purposive sampling is to sample cases/participants in a strategic way, so that those sampled are relevant to the research questions that are being posed” (p.415). The purposive questionnaire provided base-line data of the prevalence of teaching as inquiry across a small geographical area within Auckland, and alerted me to possible systems or issues that may be suggested for discussion in the interview phase. This is illustrated in Figure 3.1, where the phases of the research design are presented with the research methods pertinent in each phase shown.

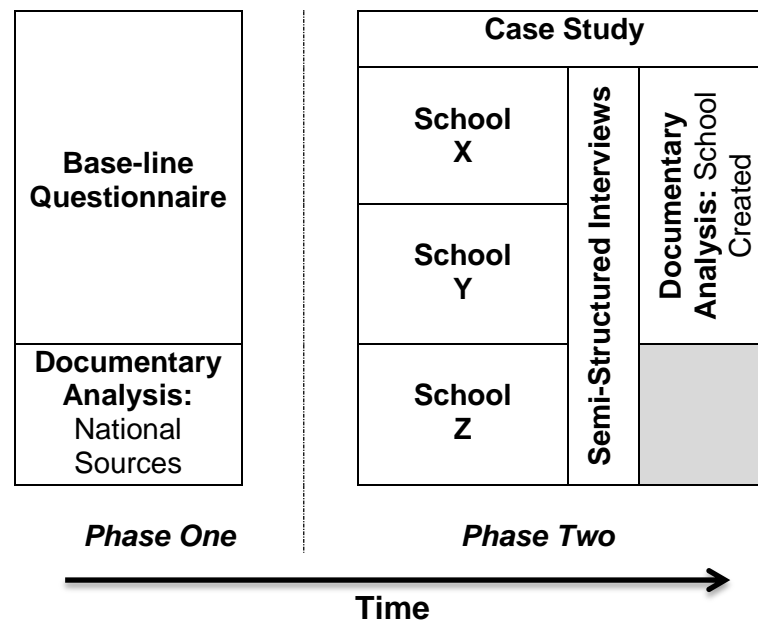


Figure 3.1: The Research Design

#### *Base-line Questionnaire Sampling*

A base-line questionnaire was used to gather information from primary schools that were within a small geographical area in Auckland forming a purposive sample. This involved personally delivering the questionnaire to 31 primary schools. I made personal contact with the principals to invite them to complete the questionnaire and return it in the included self-addressed and stamped envelope in order to get a good response rate. I received 23 questionnaires from this process, exceeding my initial expectation; my own school was not included in the sample.

#### *School Sampling*

The three organisations that agreed to participate in the study form part of the wider geographical area in which my current place of employment is situated; it was through a local principal's association that I directly invited the principals of three organisations to agree to be part of the research, forming a convenience sample. A convenience sample is that which is available to the researcher and does not therefore participate in the process of chance which occurs in random sampling (Bryman, 2008). I used the following criteria to

select the organisations: 1) student rolls of over 500 students; 2) staffed by more than 20 classroom teachers; 3) high decile; and 4) I had been informed by staff members at these schools that professional inquiry already occurs in these organisations. I had no previous working relationship with the three principals directly, so the relationship was that of a researcher/participant relationship. I also narrowed my selection down to large primary schools because I was making an assumption that in larger schools leaders may have to have more robust systems to ensure a culture of inquiry occurs amongst staff. Confidentiality was essential to maintain because of the associated geographical relationship between myself, my organisation and each schools' membership to the local principal's association. Table 3.1 shows the profiles of each participating school and the similarity amongst them.

*Table 3.1: Profiles of Participating Schools*

|                              | <b><i>School X</i></b> | <b><i>School Y</i></b> | <b><i>School Z</i></b> |
|------------------------------|------------------------|------------------------|------------------------|
| <b><i>Institute Type</i></b> | Contributing           | Full                   | Contributing           |
| <b><i>Authority</i></b>      | State                  | State                  | State                  |
| <b><i>Roll Size</i></b>      | U7                     | U6                     | U7                     |
| <b><i>Decile Rating</i></b>  | 9                      | 10                     | 10                     |
| <b><i>School Gender</i></b>  | Co-Educational         | Co-Educational         | Co-Educational         |

To clarify some of the terminology in Table 3.1, a contributing school is a primary school that has year levels 0-6, while a full primary has year levels 0-8. The roll size is indicated by a U rating; U6 schools have a student roll between 501-675 students, while U7 schools have a student roll between 676-850 students. A decile rating from 1-10 is an indication of the socio-economic status and social factors of the community and affects the operational funding supplied by the State for each school; decile 10 communities having a higher income per household and therefore the State provides less operational funding per student than communities that are designated with a low decile rating.

### *Semi-structured Interview Sampling*

Using more than one organisation allowed me to interview the school principal and up to three staff members in each organisation for a period of no more than thirty minutes, providing a total of ten interviews to undertake, transcribe and analyse. The principal of each research school was interviewed first, in order for me to understand each school leaders understanding of teaching as inquiry and subsequently the espoused systems, practices and challenges in each context. At the conclusion of each principal interview I established with the principal the secondment of further interviewees within the organisation. The principal was asked to email their staff the information of the study and forward me the email details of up to three staff members that volunteered to participate in a further semi-structured interview. This would allow me to determine whether the espoused systems were in-use and meeting the needs of staff members, along with identifying practices and challenges at different levels within the organisation. The following Table 3.2 shows the levels within each organisation of the ten participants.

*Table 3.2: Participant Demographic*

|                                     | <b><i>School X</i></b> | <b><i>School Y</i></b> | <b><i>School Z</i></b> |
|-------------------------------------|------------------------|------------------------|------------------------|
| <b><i>Principal</i></b>             | 1                      | 1                      | 1                      |
| <b><i>Leader (non-teaching)</i></b> | 1                      |                        | 1                      |
| <b><i>Leader/Teacher</i></b>        | 2                      | 1                      | 1                      |
| <b><i>Teacher</i></b>               |                        | 1                      |                        |
| <b><i>Total participants:</i></b>   | <b>4</b>               | <b>3</b>               | <b>3</b>               |

Four of the participants interviewed were classroom teachers with leadership responsibilities of a team; this provided an interesting dual perspective from these participants when answering the interview questions. Participants were invited to bring copies of documents that they deemed fitted the purpose of supporting a culture of inquiry within each organisation for sharing with the researcher at the time of the interview.

## **RESEARCH METHODS**

A small scale multiple case study uses a variety of methods to collect data in order to provide a rich description of the context in which the data is gathered (Merriam, 2009). The methods used in the first phase were a base-line questionnaire and documentary analysis from official sources and during the second phase semi-structured individual interviews and documentary analysis from school created sources. These methods are consistent with an interpretive qualitative research design, as they allowed participants a voice and the researcher to see through the eyes of participants (Bryman, 2008). The base-line questionnaire was selected as a tool to gather a wider variety of responses from a selected geographical area and to alert the researcher to possible emerging understandings, themes and challenges prior to the interview phase. Semi-structured interviews were selected as a flexible tool which allowed me to explore in-depth the views and experiences of both leaders and teachers on the systems employed to ensure teaching as inquiry occurs in the organisation. Fontana and Frey (2005) state that “interviewing is one of the most common and powerful ways in which we try to understand our fellow humans” (p. 697-698). The additional method of documentary analysis was used in two ways: firstly, to provide the basis for understanding the context of the research topic teaching as inquiry, using primarily official documents deriving from the Ministry of Education and research literature on the topic; and secondly, official documents deriving from private sources (school based documents), to support and confirm the findings from the semi-structured interviews of the systems that leaders and teachers use to employ teaching as inquiry. Wellington (2000) agrees that documentary analysis in addition to interviews is a complementary source of research data and “forms an excellent means of triangulation, helping to increase the ‘trustworthiness’, reliability and validity of research” (p. 121). The issues of reliability and validity are explained in a later section.

### **The Base-line Questionnaire Method**

Diligent thought was given to the design, layout, length and wording of the questions after I conducted a pilot of the questionnaire with a group of deputy

principals from a professional learning group that I am a member of. The members of this group did not belong to the geographical area in which the case study schools were located; however their school demographics were similar to the selected geographical area. Bell (2007) asserts “it is only when a group similar to your main population completes your questionnaire and provides feedback that you know for sure that all is well” (p. 232). From the pilot group feedback I changed the wording of one question to include a range of terms or phrases that may be used for teaching as inquiry in an organisation rather than a specific term.

The questionnaire consisted of nine questions (see appendix 2, p. 140). The first three questions were closed questions and sought to collate data on the demographic of the primary school. It was anticipated that the subsequent analysis of these first questions might be sorted into themes related to school size. However, the data supplied was not sufficient to draw such conclusions, so it was excluded. The next four questions were a mix of a closed question with a selection of responses to choose from and the ability for the participant to make further comment. The last two questions were open and required individual written responses. The closed parts of the questions provided some data to draw comparison whilst the comments gave rich data to further form emerging themes and challenges for leaders.

### **The Semi-structured Interview Method**

The most commonly used method in qualitative research are interviews which are used to find out information about participants’ experiences, knowledge, opinions, beliefs and feelings (Bryman, 2008). Interviews using a qualitative lens gather descriptive data in the participant’s own words and are a rich source of data. Interviews may be structured, semi-structured or unstructured. Less structured interviews are more flexible and allow participants to convey their point of view more freely (Bryman, 2008; Fontana & Frey, 2005). In the research study, semi-structured interviews were used to gather information about the ways in which the participating school leaders establish and maintain systems to ensure teaching as inquiry occurs and to interview teachers of their understanding of the value of the process of inquiry

to improve teaching and learning, and to reflect on the systems employed in the organisation in which they work.

In semi-structured interviews all participants were asked the same basic open-ended questions, the wording and sequence were determined in advance and formed an interview guide for the interviewer to follow. In semi-structured interviews, interviewers are able to ask extra, optional questions to gain more detailed information, or to follow a viewpoint made by the participant (Bryman, 2008); this allows more flexibility for participants to express their ideas fully and freely providing more information for the researcher to draw meaning onto the topic (Fontana & Frey, 2005). Since all participants were asked the same basic questions most of the responses can be compared and it may be easier to organise and analyse data compared to a completely unstructured interview. Nevertheless, semi-structured interviews do not provide an understanding of the way in which participants structure the topic themselves because the standardised questions may restrict the spontaneity and relevance of questions and answers (Bryman, 2008; Fontana & Frey, 2005).

As the interviewer I was aware that I needed to establish a rapport with each participant to provide a relaxed atmosphere in which reciprocity could prevail and that I needed to listen carefully to participants' responses, and help them to form their thoughts without being directive (Bryman, 2008; Fontana & Frey, 2005; Hinds, 2000). While open-ended interviewing is to find out what is in the participant's mind, caution should be taken not to put things into the participant's mind. As an interviewer I was mindful that I understood this role and was not to convey my personal opinions, as responses may be biased if participants were aware of my perspective as the interviewer (Fontana & Frey, 2005; Hinds, 2000). In order to ensure the interview process was successful by providing the data needed to the answer the research questions, I undertook a pilot of the interview process and questions with a school principal and teacher that were not involved in the wider research. Bell (2007) agrees by stating "no matter how busy you are, all data-collecting instruments have to be piloted" (p. 231). This allowed time to practice the technique of a semi-structured interview, to reflect and restructure the order of the questions and question types. It presented an opportunity to trial responses to

participants, prompting and asking additional questions for clarification and checking that I knew how to use the audio recording device to record the interview, followed by a trial of the subsequent transcribing process. From my reflections of the pilot process I included more questions that asked for a deeper level of understanding in order to discover what informed the participants' understandings of inquiry and questions that provoked an opinion response. At the conclusion of the pilot interviews two interview guides (one for school leaders and one for teachers) were set to conduct the interviews and allowed for findings across the different schools to be collected, compared and contrasted for analysis (described in a later section).

### **The Documentary Analysis Method**

The third method of data collection for this study was the examination of several forms of documentation: 1) individual school created documents; 2) documentation that put forwards teaching as inquiry as an effective pedagogy; and 3) documentation on systems and school leadership. Prior to the semi-structured interview I examined the published documentation (types 2 and 3 – official documentation deriving from state and published sources) on the topic to gain a comprehensive understanding of current leadership practice in developing and sustaining systems to build a culture of inquiry, and teaching as inquiry in order to be prepared before visiting the research locations. Wellington (2000) agrees that “every research project involves, to some extent, the study and analysis of documents, even if this is only done in the literature review” (P.113).

Although the documents from types 2 and 3 formed a major basis of the literature component of the thesis for this study, I anticipated that this type of documentation would form the basis of the school created documentation. An anticipated example of this was the school based practices associated with staff development and attestation related to the recently reviewed Registered Teacher Criteria (New Zealand Teachers Council, (NZTC), 2010) in criteria 12: “use critical inquiry and problem-solving effectively in their professional practice” (p. 14), as discussed previously in the literature review chapter. Therefore school leaders may have policy or procedures related to how



teachers can achieve this in their organisation's systems. In gathering an example of this I could then cross-check official school documents with state documents and compare these with any teacher created documentation if supplied by the participants.

At the semi-structured interview I sought permission to view any supporting school created documentation (type 1) of the systems employed for teaching as inquiry to occur in the organisation. I anticipated initially that these documents could include: school policy, curriculum delivery plans, long term planning formats, evaluation formats, data tracking sheets, target group identification documents and any other documentation deemed relevant in provision by participants. Not all organisations were forthcoming in such documentation and therefore a comparison between each organisation was not possible. Several authors (Bryman, 2008; Wellington, 2000) suggest that as well as the above document sources that are paper based consideration could also include forms of electronic and other presented media, therefore viewing each school's website was undertaken too.

## **DATA ANALYSIS**

Bryman (2008) and Lofland, Snow, Anderson and Lofland (2006) all agree that the analysis of qualitative research is time consuming and labour-intensive because of the vast amount of data collected from using a variety of methods. The process of turning data into findings and results can be described as a "transformative process" (Lofland et al., 2006, p. 195). An inductive analysis to qualitative research places the researcher as the central agent in this transformative process because the interpretation of the data is driven from the data-base itself; rather than a deductive analysis approach which produces data that has been the result of testing a hypothesis or theory base (Lofland et al., 2006). Adopting this approach the researcher immersed in data-collection needs to start the analysis of data shortly after each part has been collected (Bryman, 2008). Miles and Huberman (1994, cited in Lofland et al., 2006, p.199) suggest that data analysis "occurs continuously throughout the life of any qualitatively oriented project" (p. 10). The first basic

activity employed in qualitative data analysis is usually the process of coding the data collected.

Coding is the process of condensing and organising the data collected into concepts and categorises for analysis. Lofland et al., (2006) suggest that coding has two overlapping process: 1) Initial or open coding; followed by 2) focussed coding. During the pilot of the semi-structured interview and subsequent practice at transcribing, I attempted to devise a coding pattern and themes that may occur in the actual interviews (Bell, 2007). This allowed me to reflect critically during the semi-structured interview process and ask further lines of questions that elicited these pre-known themes, thus drawing on more constructivist ideals, where “people create and maintain meaningful worlds through dialectical processes of conferring meaning on their realities and acting within them” (Charmaz, 2000, cited in Bryman, 2008, p. 549). Throughout the whole of the research process from design to written analysis there was careful attention paid to ensuring that the design and processes were reliable and valid.

All data was collected from: 1) the base-line questionnaire; 2) the three school principal interview transcripts and seven classroom teacher interview transcripts; and 3) documents provided by the three schools (if any) along with Ministry and other agency literature. The analysis helped to identify the understandings of teaching as inquiry and how this aligns with espoused systems and practices in a primary school, and some of the challenges that both primary school leaders and teachers face when implementing inquiry based practices.

### **Base-line Questionnaire Analysis**

The data from the base-line questionnaire began the coding process where the information for each question was collated and percentiles drawn out to see whether there were any outstanding items in each question. The open ended responses were colour coded, grouped and arranged to draw themes for each question. The data collected from the base-line questionnaire allowed me to reflect critically during the semi-structured interview process

and ask further lines of questions that elicited these pre-known themes, thus drawing on more constructivist ideals, where “people create and maintain meaningful worlds through dialectical processes of conferring meaning on their realities and acting within them” (Charmaz, 2000, cited in Bryman, 2008, p. 549). Once the coding process was completed and themes were emerging in the data, the analysis was lastly used to cross reference themes that emerged from the interview data and an explanation for the themes was made with Ministry, other government agencies and educational research literature on inquiry based practices, professional development and school culture to draw findings and conclusions.

### **Semi-Structured Interview Analysis**

The first basic activity employed in qualitative data analysis is usually the process of transcribing the interview material and coding the data collected. I transcribed the interviews personally and sent a copy of the transcript to each participant to check for editing and approval before the use of the transcript for data analysis. Once approval of the transcripts was agreed I then underwent the process transferring the appropriate text from each transcript into a matrix format for each of the research questions. Once the relevant text was sorted on the matrix according to each case school and leadership position within each context, I was able to highlight text in different colours that indicated different themes. This process proved valuable in comparing the views of leaders and teachers from within each research location and across the three case schools.

### **Documentary Analysis**

The school based documentation (type 1) was collected at the time of interview or emailed soon after the interview. If provided it was anticipated that school based documentation will present evidence of the espoused systems employed to promote and sustain inquiry based practices within the organisation.

Scott (1990) proposes that document types can be viewed in “two different dimensions: access and authorship” (cited in Wellington, 2000, p.324). Wellington (2000) has designed a framework for classifying the typology of documents (based on Scott, 1990) which was drawn on in the research study when analysing the type of documents to be used and analysed for “their intention, their source and their meaning” (p. 113). Further to this classification both Wellington (2000) and Bryman (2008) assert that documents should be evaluated using Scott’s (1990) four criteria for the quality of a document: 1) Authenticity; 2) Credibility; 3) Representativeness; and 4) Meaning. However, Wellington (2000) proposes the further use of eight questions to deeply analyse the meaning of documents: 1) Authorship; 2) Audience; 3) Production; 4) Presentation, appearance, image; 5) Intentions; 6) Style, function, genre; 7) Content; and 8) Context/frame of reference. These criteria were considered when analysing the documents provided by each school (if any) and used as supporting evidence to confirm data from the interview phase. For each document I created a two column table with Wellington’s eight criteria down the left side and my interpretation of the document in the right hand column. This analysis provided the information necessary to support espoused views and understand the systems in use. Bryman (2008) cautions researchers when interpreting texts of all kinds that although documents are important to corroborate evidence derived from other sources, we must bear in mind that they may not be accurate or lack bias, and that they will have been written for a specific purpose with a specific audience in mind.

## **RELIABILITY AND VALIDITY**

Reliability in qualitative research refers to matters of accuracy, consistency and quality of the research tools used in the study (Cohen et al., 2007). Reliability is concerned with the extent to which a research study can be repeated producing similar results (Bryman, 2008; Hinds, 2000). Semi-structured interviews are harder to ensure reliability than structured interviews because each interview may involve the interviewer asking spontaneous questions to elicit further information; this is unlikely to be replicated in each

interview. By closely following an interview guide each time I undertook an interview I aimed to reduce this disparity in order for quality and reliability to prevail. In this research study, once the interviews were transcribed and before any analysis was undertaken, the transcribed data was checked by the participants; this was one way to check the accuracy of the information generated through the semi-structured interviews, and is often called member checking or respondent validation (Bryman, 2008).

Research can be reliable but this does not mean that it is valid (Davidson & Tolich, 2003). Validity is concerned with the question of whether the tool selected “measure what it purports to measure and whether the measurements that are obtained are meaningful” (Keeves, 1997, p.281). Validity in qualitative research is mainly measured in two ways, internal and external validity; although both Keeves (1997) and Cohen et al., (2007) discuss several other forms of validity. Internal validity can be achieved through triangulation of the data, involving the use of more than one method of data collection to cross-check findings to ensure credibility and authenticity of the results (Bryman, 2008; Cohen et al., 2007; Keeves, 1997). The research study ensured a measure of validity primarily through the use of methodological triangulation (Stake, 1995); interestingly Denzin and Lincoln (2005) assert that “qualitative research is inherently multi-method in focus... the use of multiple methods, or triangulation, reflects an attempt to secure an in-depth understanding of the phenomena in question” (p. 5). In the research study triangulation is further maximised by considering the multi-level positions of the participants in the semi-structured interviews of both school leaders and teachers, which allowed for a fuller picture of the situation through the examination of the different viewpoints from different levels in the schools. In addition by including documentary analysis I was able to cross-check, or not, the findings of the semi-structured interview therefore providing greater validity (Bryman, 2008). The methods used in this study for the collection and analysis of data have facilitated the triangulation of the data to ascertain trustworthiness thus ensuring the quality and validity of the research study. Cohen et al., (2007) suggest that bias in interviews is a potential source of invalidity which is difficult to eliminate, especially in semi-structured interviews.

I reduced bias by pilot testing the interview guide and by ensuring that no leading questions were used to influence the responses of the participants. Furthermore validation of the transcripts by the participants helped to ensure the credibility of the results.

External validity in qualitative research is concerned with the degree to which the data collected can be transferred to other contexts or settings, it is a process performed by readers of research and can be achieved by the researcher doing a thorough job of describing the research context so that the reader might be able to identify with the results and make inferences if they can recognise a similar setting or situation to their own. To minimise invalidity I needed to have confidence in the elements of the chosen research design and process (Cohen et al., 2007) and I gained confidence in the methods of conducting semi-structured interviews through the pilot process (Davidson & Tolich, 2003). Transferability could be an issue for the research study in terms of the reader drawing generalisations from the small sample of three contexts to extend to the wider population; to help strengthen external validity in the research the use of semi-structured interviews was employed as a method to provide full descriptions from participants in order that they may help so “that others can decide the extent to which findings from one piece of research can be generalizable to another situation” (Schofield, 1990, cited in Cohen et al., 2007, p. 137).

## **ETHICAL ISSUES**

All research must be ethical research. Qualitative research inherently involves an investigation of people other than the researcher and central to ethical concerns is the concept of doing no harm (Bryman, 2008). Without due diligence and deliberation harm can occur although it may not be apparent. Ethical considerations cannot be an additional extra because for research to be truly ethical these considerations need to be built in from the foundation of the planning stages and continue to be considered during the whole research process (Wilkinson, 2001).

Diener and Crandall (1978, cited in Bryman, 2008) discuss four ethical principles that were addressed in the study, these are: “1) whether there is harm to participants; 2) whether there is a lack of informed consent; 3) whether there is an invasion of privacy; and 4) whether deception is involved” (p.118). Before any research study began I sought the approval of the institution in which I am studying. Bryman (2008) makes connections that ethical research is intertwined with issues of research quality especially for graduates having to seek approval to committees for ethical clearance. The application process for research with the Unitec Research Ethics Committee (UREC) is rigorous and ensures that a graduate has addressed the four ethical principles above. As a researcher I undertook the following actions to ensure that the study meet all ethical parameters.

After receiving formal approval from UREC the first phase of my research was to complete the base-line questionnaire. This process involved preparing an information sheet (see appendix 1, p. 139) which introduced myself, my research aims and sought voluntary involvement in this first research phase. The information sheet expressed that in returning the questionnaire in the supplied pre-paid envelope respondents were consenting for their data to be used in the findings of my research. Respondents were asked not to identify themselves or their school on the questionnaire sheet in order for the data to remain anonymous. The two page base-line questionnaire (see appendix 2, p. 140) was attached to the information sheet along with a self-addressed return envelope. During this phase I also emailed each of the three principals of my research schools to keep them informed of my successful UREC approval, the progress with phase one of my research and informing them that I would be a few weeks away from requiring their input into the second phase of the research.

The second phase of research was to complete the semi-structured interviews; I emailed the three principals of each research location requesting a time for interview in their location along with the information sheet, a consent form and the interview schedule so they could view these documents prior to my arrival to conduct the interview (see appendices 3-6, p. 142-145). At the time of each individual interview I reviewed the information

sheet, asked the participant if there were any questions about the study or process and got each participant to sign a letter of consent before the interview began (see appendix 4, p. 143). The permission parameters of the consent form included: 1) to digitally audio record the interview; 2) to provide copies of the transcriptions for the participants to check and edit; 3) the procedures for storage of digital data and any written documentation provided; 4) the study allowed participants to withdraw fully after five days of the interview; and lastly, 5) that confidentiality and anonymity would be maintained through not identifying them personally or their organisation. The second phase of interviewing other staff members in each of the research schools undertook the same process. Privacy was maintained by ensuring that the research data was stored in a secure place and that access to the data was limited only to the researcher and supervisor of the study.

Time was given for the participants to ask any questions and at the end they had an opportunity to make any further comments. All interviews were held at each of the research schools to assist with ensuring the participant could feel comfortable and the discussion would remain confidential. Ethical considerations in the analysis of documents needed to be carefully taken in to account when revealing the authorship of the document (Wellington, 2000). Pseudonyms were used to maintain anonymity of both schools and participants. Through completing the above actions harm to participants was minimised by their voluntary informed consent to be involved with the research study; ensuring anonymity and confidentiality through the use of pseudonyms; not being deceptive by being open and honest in the whole process; and member checking transcripts and sharing my findings of the research with participants.

## **CONCLUSION**

This chapter has discussed the use of an interpretive qualitative approach to this study of the understanding and implementation of teaching as inquiry in three primary school settings. The employment of a qualitative methodology provides a rich and deep analysis of the understandings and challenges of both school leaders and teachers when sustaining a culture of inquiry. The



three research methods were outlined and sampling considerations were detailed and justified. The research methods used in this study were triangulated to establish rigor in the research design and data analysis techniques. Finally, a discussion of the issues of reliability and validity was presented and along with a reflection of the research ethics that were relevant to this study. In the next two chapters I will present the findings that the research methodology and data collection methods provided.

## **CHAPTER FOUR**

### **SETTING THE SCENE FOR RESEARCH FINDINGS**

#### **INTRODUCTION**

This chapter presents the findings from phase one of the data collection: the documentary analysis of official documents and from the base-line questionnaire that was implemented as described in the previous chapter. This chapter is divided into two sections based on these research methods. Firstly, the findings are presented from the analysis of documents from official sources in order to set the scene for the context in which principals may base many of their leadership decisions from. Secondly, the findings from the base-line questionnaire are presented under each question item.

#### ***DOCUMENTARY ANALYSIS FINDINGS FROM OFFICIAL DOCUMENTS***

The selection of the following three documents was to provide a contextual background on the expectations from official sources on the leadership activity that may promote teaching as inquiry, a culture of inquiry, effective pedagogy or the notion of schools as learning organisations in order to understand the second research question:

How do the espoused systems of promoting and sustaining teaching as inquiry align with teacher practice and external requirements?

The source and date of each document are given followed by the intended purpose of each document and audience. The inclusion of whole text from each document was used to illustrate the relevance of the document which is then critiqued to fit the purpose of this research. The selection of documentation was based on specific terminology presented in each document that firstly implied teaching as inquiry as an effective pedagogy, effective teaching and learning practices and secondly terminology that

expressed context, culture, change, and systems. The following three documents were examined using the framework of Wellington (2000):

1. The Kiwi Leadership for Principals Model (KLP)
2. The Professional Standards for Primary Principals
3. The Registered Teacher Criteria

*The Kiwi Leadership Model (KLP) – a model of educational leadership*

The KLP (Ministry of Education, 2008a) is a model of educational leadership that has been developed to illustrate the qualities, knowledge and skills that New Zealand principals need to lead 21<sup>st</sup> century schools. The document created by the Ministry of Education has principals, aspiring principals and boards of trustees as the intended audience as presented in Figure 4.1.



*Figure 4.1: The Kiwi Leadership Model*

*Source: Ministry, 2008, p.12*

At the centre of the KLP model is educational leadership, page 12 of the document states that educational leaders lead learning to:

1. improve outcomes for all students, with a particular focus on Maori and Pasifika;
2. create the conditions for effective teaching and learning;
3. develop and maintain schools as learning organisations;
4. make connections and build networks within and beyond their schools;
5. develop others as leaders.

The main objective of these five areas is to develop learning and teaching in order to improve learning experiences and outcomes for all students. While the principles of the full role of a principal is presented in these five objectives, for the purposes of this research I am interested in the second two objectives. Here school leaders need to create the conditions for effective teaching and learning and develop and maintain schools as learning organisations. These aspects sit within the pedagogical practices of culture, pedagogy and systems that align with this research. Additional to the areas of practice are specifically the school context dimension of the model, on page 13 it states:

Different contexts can present different challenges for school leaders. As educational leaders, principals need to adapt or adjust their leadership practices to meet the particular demands of school context.

Along with relationships as the second central component encompassing educational leadership in the KLP model. Of particular importance to this research the document states on page 14 that relationships enable the principal to:

- actively lead and participate in professional learning with staff
- encourage and participate in professional conversations that help teachers to share expertise and strategies that improve student learning
- encourage giving feedback to teachers through regular and documented classroom observations.

Furthermore the qualities of educational leadership in the KLP model that underlie a principal's ability to lead the school are important for this research, primarily: Manaakitanga: Leading with moral purpose, Ako: being a learner,

and Awhinatanga: guiding and supporting. These aspects of the KLP model were selected because of the text and intent that would help guide leaders in the decisions they make in their organisations. The underlying moral purpose of improving outcomes for students also incorporates a responsibility for the leader to promote the professional growth and support of staff. Leaders also need to be learners and build collaborative learning and teaching relationships within the school to increase professional knowledge and ensure that opportunities help strengthen a school wide commitment to improved outcomes across the organisation and learning community. Within the KLP model are two key activities for effective educational leaders being leading change and problem-solving. However, if leaders adopt an inquiry lens, problem posing becomes a more critical activity for school leaders. Problem posing to raise and identify issues that may challenge the status quo in an organisation of possible alternatives could create tension with staff if the contextual conditions are not present for these to be received and acted upon.

### *The Professional Standards for Primary Principals*

All schools are required to have a performance management system for principals and teachers; the Professional Standards for Principals (2008) is a central document that forms part of this process. The Professional Standards for Principals have been created from the findings of the Best Evidence Synthesis on School Leadership (Robinson et al., 2009) and the Kiwi Leadership for Principals document (Ministry, 2008a); and is based on the four KLP Areas of Practice: 1) Culture; 2) Pedagogy; 3) Systems; and 4) Partnerships and Networks. Three of the areas of practice were analysed as they were considered to contain key terminology in the selection criteria for my research. The relevant text from each Area of Practice is provided in a table format below followed by an analysis of the findings. Many of the activities that leaders would employ would not be seen as purely one aspect of an area of practice, many leadership activities and systems would be integrated across several areas of practice.

The implication for leaders within the culture area of practice shown in Table 4.1 is that they need to create an organisation where the culture focuses on

improving learning and teaching outcomes in an environment that promotes collaboration, leadership, and respect for all learner abilities and knowledge, and that leaders participate in professional growth too.

*Table 4.1: Professional Standards related to Culture*

| <b>Area of Practice</b>  | <b>Professional Standards</b>   |
|--|---|
| <b>Culture</b><br><br><i>Provide professional leadership that focuses the school culture on enhancing learning and teaching.</i> | <ul style="list-style-type: none"> <li>• <i>Promote a culture whereby staff members take on appropriate leadership roles and work collaboratively to improve teaching and learning.</i></li> <li>• <i>Promote an inclusive environment in which the diversity and prior experiences of students are acknowledged and respected.</i></li> <li>• <i>Maintain a safe, learning-focused environment</i></li> <li>• <i>Demonstrate leadership through participating in professional learning.</i></li> </ul> |

*Source: Ministry, 2010, p.35*

The emphasis is clearly ‘learning-focused’ and puts leadership for learning at the centre of the principal’s role as an educational leader. This links across to the pedagogy area of practice shown in Table 4.2, where the implication for leaders is to create a learning community based on evidence in order to maximise learning in which success is experienced.

*Table 4.2: Professional Standards related to Pedagogy*

| <b>Area of Practice</b>   | <b>Professional Standards</b>   |
|---|---|
| <b>Pedagogy</b><br><br><i>Create a learning environment in which there is an expectation that all students will experience success in learning.</i> | <ul style="list-style-type: none"> <li>• <i>Promote, participate in and support on going professional learning linked to student progress.</i></li> <li>• <i>Demonstrate leadership through engaging staff and sharing knowledge about effective teaching and learning in the context of the New Zealand curriculum documents.</i></li> <li>• <i>Ensure staff members engage in professional learning to establish and sustain effective teacher/learner relationships with all students, with a particular focus on Maori Students.</i></li> <li>• <i>Ensure that the review and design of school programmes is informed by school-based and other evidence.</i></li> <li>• <i>Maintain a professional learning community within which staff members are provided with feedback and support on their professional practice.</i></li> <li>• <i>Analyse and act upon school-wide evidence on student learning to maximise learning for all students with a particular focus on Maori and Pasifika students.</i></li> </ul> |

*Source: Ministry, 2010, p.35*

Teaching as inquiry could be implied as an effective model to employ as leaders are directed to use the NZC documents and to make evidence informed decisions to maximise learning. This would include having productive learning conversations with staff to raise learning outcomes and support teacher improvements. What is interesting to note is that the word 'inquiry' is absent from all the indicators in the areas of practice in the professional standards for principals.

Lastly, in Table 4.3, the implication for leaders within the systems area of practice is to effectively manage personnel to ensure that staff make best use of opportunities to be the best teachers they can be in order to raise outcomes for students. Therefore the systems that leaders will develop will be based on evidence from within the school (and external) to plan and implement such changes.

*Table 4.3: Professional Standards related to Systems*

| <b>Area of Practice</b>  | <b>Professional Standards</b>   |
|--|---|
| <b>Systems</b><br><br><i>Develop and use management systems to support and enhance student learning.</i> | <ul style="list-style-type: none"> <li>• <i>Provide the Board with timely and accurate information and advice on student learning and school operation.</i></li> <li>• <i>Effectively manage personnel with a focus on maximising the effectiveness of all staff members.</i></li> <li>• <i>Use school/external evidence to inform planning for future action, monitor progress and manage change.</i></li> </ul> |

*Source: Ministry, 2010, p.36*

### *The Registered Teacher Criteria and Handbook*

The Registered Teacher Criteria (RTC) and Handbook (New Zealand Teachers Council (NZTC), 2010) define the standards for quality teaching that all teachers in New Zealand need to achieve to be fully registered. The RTC replaces the Satisfactory Teacher Dimensions and Professional Standards for Teachers (Registered Teachers' Board, 1997) and was developed to reflect current thinking and research about quality teaching practice. The document created by the NZTC in consultation with the profession has the intended audience of boards of trustees (as the employer), principals, teacher

educators and all teachers from across the education sector irrespective of their setting or years of experience. Mandatory implementation took effect from 2011 with all teachers by 2013 being assessed using the criteria for gaining full registration or renewing their practicing certificate. The handbook document summarises eight purposes that outline the intention for creating the RTC, of which the following I have selected as they align with my research. The handbook document on page 3 states that the RTC has been developed for the following purposes:

- as a description of the essential professional knowledge in practice, professional relationships and professional values required for successful teaching
- as a criteria to guide the professional learning and the assessment of teachers as they work towards gaining full registration
- as the criteria for the assessment of teachers to maintain a practising certificate and to retain fully registered teacher status – an important credential for all teachers
- as a framework to guide career long professional learning and development of all teachers
- to provide a common language for professional reflection and dialogue as teachers focus their efforts on enhancing learning outcomes of ākonga (all learners)

The text selection from above of professional knowledge in practice, professional relationships, professional learning, assessment of teachers, common language for professional reflection and dialogue, and enhancing learning outcomes was pertinent to my research. The implication for teachers is that they are expected to have continued professional learning throughout their career and engage in professional reflection and dialogue to concentrate their efforts on raising learning outcomes of all learners (students, their colleagues and self). The implications for school leaders are to promote professional dialogue, develop the school culture and systems required to have a collaborative atmosphere in which dialogue is valued, and to promote



the RTC as a guideline for professional growth rather than tick list of standards for compliance.

The RTC has four overarching statements that guide the intent of the criteria and twelve criteria that are formed under two professional dimensions: 1) professional relationships and values, which relate to five criteria; and 2) professional knowledge in practice, which seven criteria relate to. For the purposes of this analysis I selected five criteria that were relevant based on key terminology for my research study. The relevant text from each criterion is provided in a table format below followed by an analysis of the findings. Criteria 1 of the RTC presented in Table 4.4 sits within the dimension of professional relationships and values.

*Table 4.4: Registered Teacher Criteria 1*

| <b>Criteria Descriptor</b>   | <b>Key Indicators</b>   |
|--|---|
| <i>1: establish and maintain effective professional relationships focused on the learning and well-being of all ākonga</i> | <i>I. engage in ethical, respectful, positive and collaborative professional relationships with:</i> <ul style="list-style-type: none"> <li>• ākonga</li> <li>• teaching colleagues, support staff and other professionals</li> </ul> |

*Source: New Zealand Teachers Council, 2010, p.10*

The implication for teachers is that the focus for teachers is centred on promoting learning and well-being for all learners and that in order to do this teachers need to have effective relationships with not only their students but all in the learning community.

Criteria 4 of the RTC presented in Table 4.5 sits within the dimension of professional relationships and values.

*Table 4.5: Registered Teacher Criteria 4*

| <b>Criteria Descriptor</b>  | <b>Key Indicators</b>   |
|---|---|
| <i>4: demonstrate commitment to ongoing professional learning and development of personal professional practice</i> | <i>I. identify professional learning goals in consultation with colleagues</i><br><i>II. participate responsively in professional learning opportunities within the learning community</i><br><i>III. initiate learning opportunities to advance personal professional knowledge and skills</i> |

*Source: New Zealand Teachers Council, 2010, p.11*

The implication for teachers is that they are accountable for their own professional learning and to make the most of opportunities provided to them within the learning community. The handbook suggests that teachers use the following reflective statement to guide their personal review of this criterion “how do I continue to advance my professional learning as a teacher?” (p. 11). The emphasis is on ongoing nature of professional learning and that learning is not a one-off event but a development of practice.

Criteria 5 of the RTC presented in Table 4.6 sits within the dimension of professional relationships and values also. The implication for teachers is that they have to be an active member of their learning community.

*Table 4.6: Registered Teacher Criteria 5*

| <b>Criteria Descriptor</b>   | <b>Key Indicators</b>  |
|--|--|
| <b>5:</b> <i>show leadership that contributes to effective teaching and learning</i> | <b>IV.</b> <i>actively contribute to the professional learning community</i> |

*Source: New Zealand Teachers Council, 2010, p.11*

In order to do this they may have delegated responsibilities that they have to undertake and contribute to growing professional knowledge of other teachers and their learning community through engaging in professional dialogue and sharing their expertise. The reflective statement guiding review for this criterion is “how do I help support my colleagues to strengthen teaching and learning in my setting?” (p. 11). This clearly places the teacher as an integral participant in the learning community and would require an environment of collaboration, trust, respect and where professional dialogue would prevail.

Criteria 11 of the RTC presented in Table 4.7 sits within the dimension of professional knowledge and practice. The implication for teachers is that they need to make decisions based on evidence that has been accurately gathered to review the progress and next learning steps for their students. The use of formative assessment strategies could be engaged to promote dialogue to feedback and support learners, along with providing evidence to wider

aggregation of school data that could identify learning hot spots for the community.

*Table 4.7: Registered Teacher Criteria 11*

| <b>Criteria Descriptor</b>   | <b>Key Indicators</b>  |
|--|--|
| <b>11:</b> analyse and appropriately use assessment information, which has been gathered formally and informally | <ul style="list-style-type: none"> <li><i>I. analyse assessment information to identify progress and ongoing learning needs of ākonga</i></li> <li><i>II. use assessment information to give regular and ongoing feedback to guide and support further learning</i></li> <li><i>III. analyse assessment information to reflect on and evaluate the effectiveness of teaching</i></li> <li><i>IV. communicate assessment and achievement information to relevant members of the learning community</i></li> </ul> |

*Source: New Zealand Teachers Council, 2010, p.14*

This indicates that teachers need to be reflective of the effectiveness of their own practice on not only student outcomes, but their contribution to the learning of the wider learning community.

Criteria 12 of the RTC presented in Table 4.8 sits within the dimension of professional knowledge and practice. The reflective question guiding teachers to review this criterion is “how do I advance the learning of my ākonga through critical inquiry within my professional learning?” (p. 14).

*Table 4.8: Registered Teacher Criteria 12*

| <b>Criteria Descriptor</b>   | <b>Key Indicators</b>  |
|--|--|
| <b>12:</b> use critical inquiry and problem-solving effectively in their professional practice | <ul style="list-style-type: none"> <li><i>I. systematically and critically engage with evidence and professional literature to reflect on and refine practice</i></li> <li><i>II. respond professionally to feedback from members of their learning community</i></li> <li><i>III. critically examine their own beliefs, including cultural beliefs, and how they impact on their professional practice and the achievement of ākonga</i></li> </ul> |

*Source: New Zealand Teachers Council, 2010, p.14*

The implication for teachers is that they are expected to reflect on their espoused beliefs and how their beliefs might impact on how they teach. It assumes that teachers engage already in observations and dialogue by responding to feedback from other colleagues on how they might improve their teaching, and that teachers are engaging not only with evidence from their learners but from professional literature to review their practices.

The handbook specifically states “the criteria and indicators should be viewed as interdependent and overlapping” (p. 9) which recognises that teaching is a highly complex activity and often encompasses a wide range of teaching activity that crosses both dimensions to raise outcomes for learners in a variety of diverse contexts. The selection of the criteria above could be seen as enacting parts of the NZC Teaching as Inquiry Model (Ministry, 2008, p. 35). The implications for school leaders across each of the five criteria selected above is to establish a school culture in which there is an expectation for teachers to use the criteria as a guide to promote professional inquiry in their organisations in order to raise outcomes for all learners (students, staff and the learning community) and to create clear systems to enact the RTC.

### *Summary*

The findings from the documentary analysis method of official documents have revealed that the policy context is a huge factor in establishing the culture of a learning organisation and therefore the extent to which teachers may engage in the teaching as inquiry process. Teachers are expected to be accountable for their own professional learning to improve their practice in order to enhance student outcomes and be an active contributor to the contexts in which they work. Leaders are expected to really understand the needs of the staff and promote opportunities for them to maximise learning opportunities in order for staff to raise outcomes. Leaders are expected to provide coherent systems where the staff understand the values and vision for enabling such processes which ideally occur in an environment of collaboration, trust and open communication.

## **BASE-LINE QUESTIONNAIRE FINDINGS**

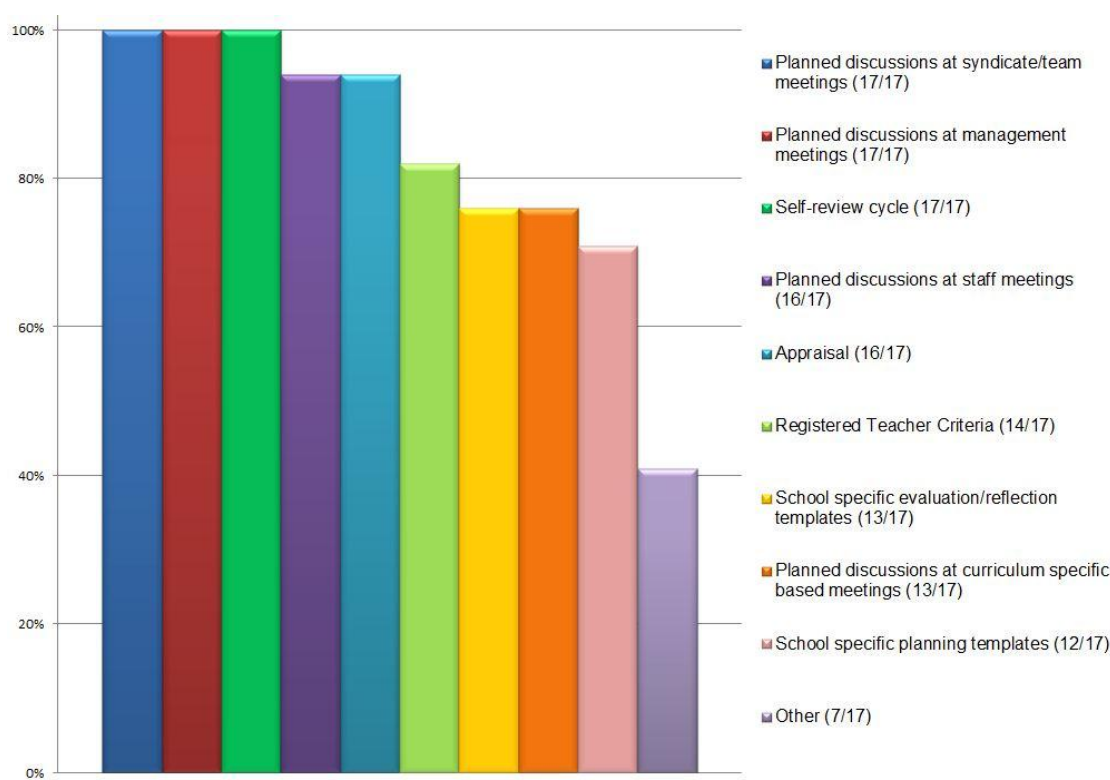
### **Introduction**

The findings in this section are organised around six questions out of the nine in the questionnaire. The first three questions were deemed irrelevant as they were statistical ones based on school size and staffing, however on analysis of these results no strong conclusions could be ascertained so have been excluded and as a consequence the question items have been renumbered appropriately.

I visited a total of 31 schools to personally hand over the questionnaires. Of the 31 schools visited I was able to see 14/31 of school leaders. I received 23/31 or 74% of questionnaires back via post self-addressed envelope. Of the 23 returned I have not included 6/23, as there was either limited data supplied or I believe they display the confusion that is evident in research (Sinnema, 2010) between teaching as inquiry and inquiry teaching. Therefore 17/31 or 55% of the questionnaire population was used in the collation that follows.

### **Question Items**

The first question asked school leaders about the systems they employ to ensure a culture of professional inquiry exists in their organisation based on the following statement from the New Zealand Curriculum (Ministry, 2007) which asserts that “effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (p. 35). Leaders were asked to make a multiple selection from possible items or to explain further systems that might be employed. The data in Figure 4.2 shows that leaders use multiple systems to ensure that a culture of professional inquiry exists in their organisation.



*Figure 4.2: Systems that a primary school leader may employ to promote a culture of professional inquiry*

Figure 4.2 shows that all of the leaders who returned the questionnaire asserted that they promoted a culture of professional inquiry by planning discussions at different levels within their organisation (at team meetings and management meetings) and as part of their schools' self-review cycle. This was followed by 94% of leaders who said they planned discussions at whole staff meetings and as part of the appraisal process for staff. 82% of respondents indicated they used the Registered Teacher Criteria as a guide, followed by 76% of leaders who used specific school created documents to reflect and evaluate practices and planned discussions at meetings that were based on specific curriculum areas. 71% of leaders responded that there was specific school created templates for planning and 40% of leaders responded with other and provided some explanation of further systems that are employed in their organisation. These ideas ranged from "engaging with high quality presenters and facilitators who support and promote the inquiry process" through to linking a school's "strategic and annual plan that includes

inquiry as a key part". Other ideas expressed by leaders who chose to identify further systems in use in their organisation included:

*Planned professional development day.*

*A school specific performance inquiry cycle based on evidence gathered and learning conversations to coach forward.*

*Assessment for Learning systems.*

Leaders are strategic in who they might employ to support their systems related to their specific context and through planned meetings and discussions with staff are deliberate. The theme of dialogue is expressed, as well as the use of outside facilitators for leaders to call upon to support a schools systems and practices.

The second question asked leaders if they had developed a model to guide teachers in professional inquiry specific to their organisation or whether they followed an existing model. 65% of leaders (11/17) responded that they had developed a school specific model for professional inquiry. What is of interest is that of the schools that responded with a school specific model many had also either commented or ticked other models that are used in conjunction or were used to inform the school based model therefore these responses have been accounted for in the results for the use of other models reflected in Figure 4.3.

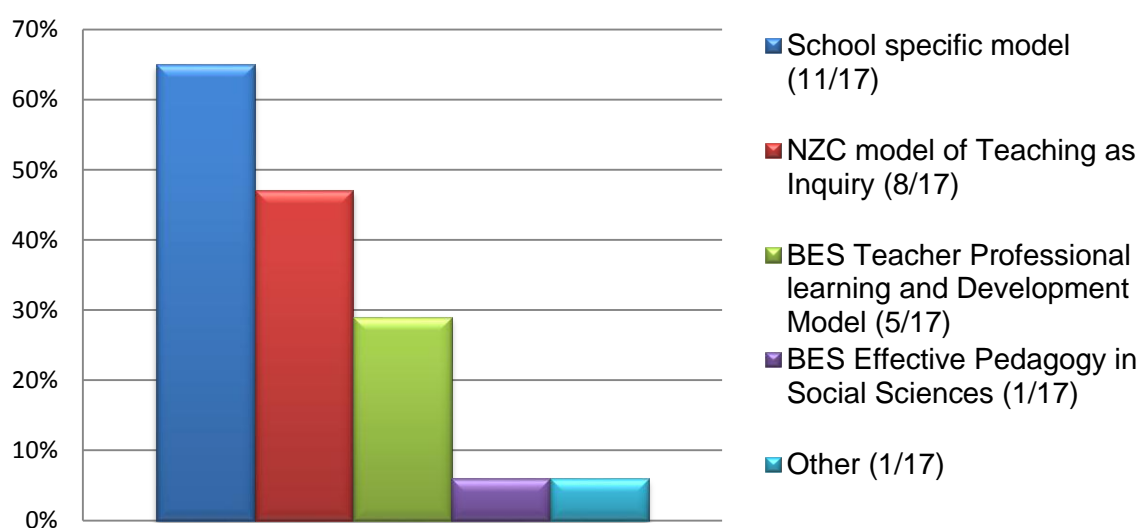


Figure 4.3: Models of Inquiry used in organisations

There were no leaders who responded that there was no specific model in their organisation, however one respondent forming 6% of the questionnaire population responded with other and provided the following explanation:

*Use varied models in different contexts loosely based on NZC*

This response I have kept separate because it differentiates that context is important to the specific use of a model of inquiry to be engaged which no other comments reflected.

The third question asked leaders how professional inquiry was monitored in their organisation. Leaders were asked to make a selection from multiple items or provide further comment of how it is monitored in their organisation. The results in Figure 4.3 shows that 88% of organisations claim to use syndicate/team meetings as an opportunity to monitor professional inquiry, followed by paperwork evidence of some form with 82% and 71% of schools through one to one teacher conversations.

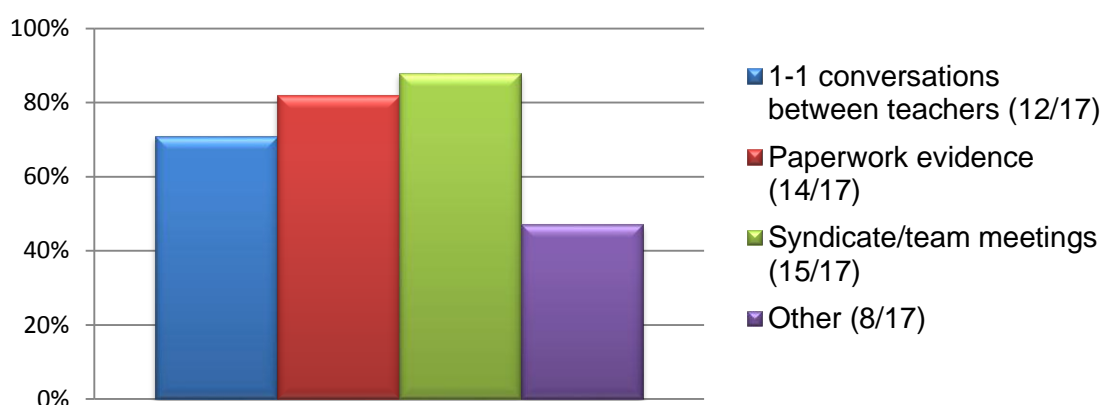


Figure 4.4: How professional inquiry is monitored in organisations

The 47% of other methods used to monitor professional inquiry are reflected in the following quotations:

*Principal's scheduled in depth review of syndicates (all teachers within each syndicate) once per year.*

*Appraisal goals are targeted to inquiry. As part of professional development we have been videoing learning conversations as part of our review cycle with an outside facilitator.*



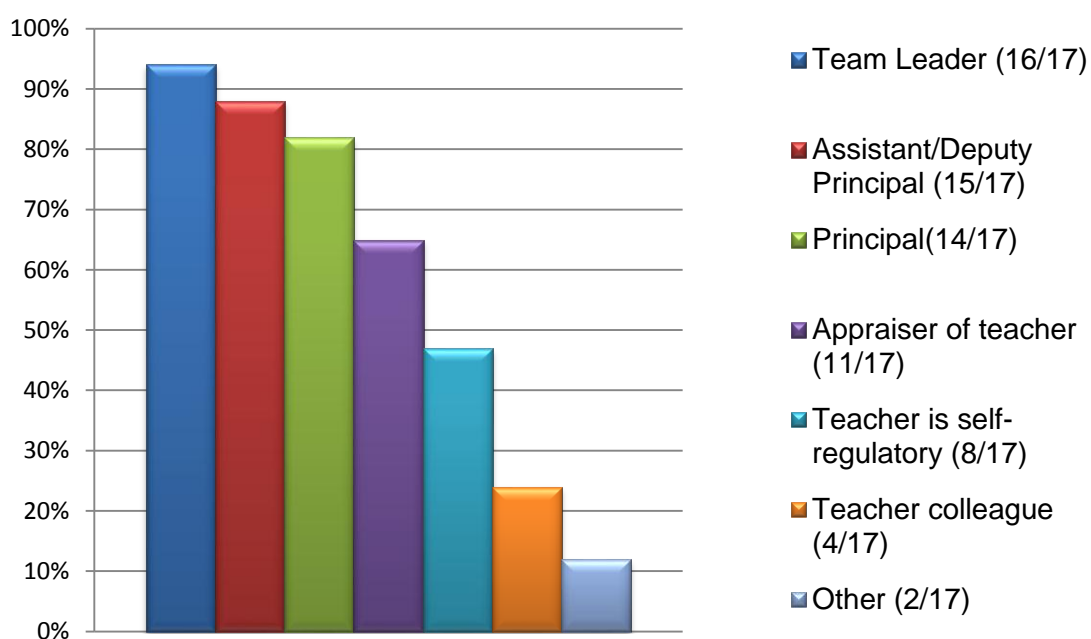
*Personal reflection each term, coaching sessions, photo/movie evidence.*

*Visits to classrooms.*

*School Review related to school wide and strategic plan including student achievement targets.*

These quotations begin to show that appraisal systems and dialogue are again themes that are beginning to emerge in the data.

The fourth question asked leaders who monitors that professional inquiry occurs in their organisation. Leaders could make multiple selections or explain further other people who may be involved in monitoring professional inquiry. All the questionnaire responses showed multiple people responsible for monitoring professional inquiry in organisations and this is reflected in Figure 4.5:



*Figure 4.5: Who monitors professional inquiry in organisations*

Figure 4.5 shows that most organisations (94%) in the study use a team leader to monitor if professional inquiry is occurring, which would be the active leader closest to classroom practice. This is followed by 88% using the assistant/deputy principal; while 82% of principals' said that they monitored professional inquiry. 65% of organisations use the teacher's appraiser and

47% of school leaders believe the teacher should be self-regulatory. 24% selected a teaching colleague and 12% chose other and explained that outside agencies/facilitators were used. The following comments were also made by respondents:

*The model is in its early stages of implementation and will be adjusted accordingly as appropriate.*

*We see ourselves as a learning community, where inquiry is not always top down and from students upwards can implement an inquiry process.*

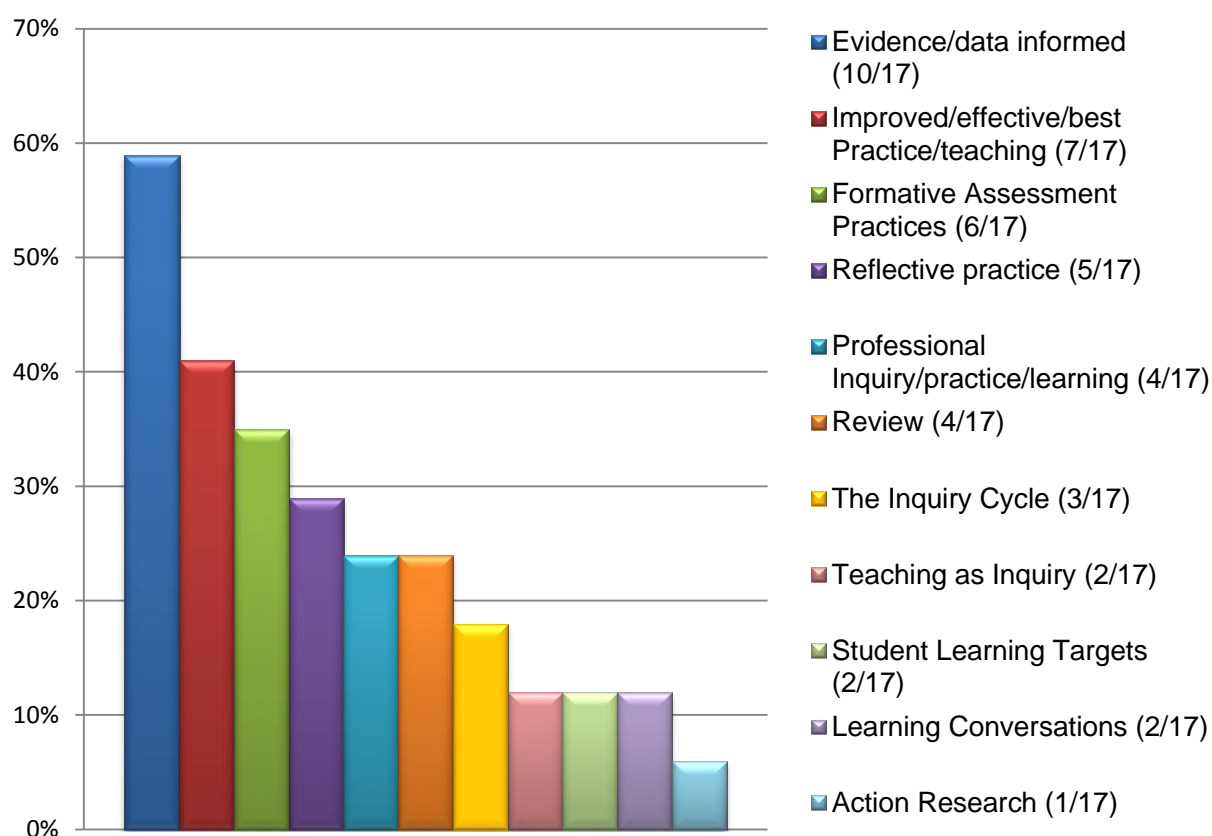
*We recognise that professional inquiry is at times formal, but it's often informal and incidental, integrated into everyday practice.*

*Tiered monitoring*

These comments reflect that monitoring professional inquiry in an organisation involves more than one person and reflects the importance of collaboration within an inquiry culture to be established in the school. One school because of its size (staff 6-10) commented:

*The Team Leader, AP/DP, Appraiser of teacher are all one and the same thing at our school*

The last two questions were open questions requiring respondents not to be guided by pre-selected response items. These final questions were important to see what terminology or phrases were commonly used in organisations and what challenges school leaders espoused when implementing professional inquiry based practice. These questions undertook a different form of analysis to the previous items by classifying the huge variety of responses and coding them under group headings. Question five asked what the common term, terms or phrases were used for teaching as inquiry/professional inquiry based practice in organisations. There were 65 responses that needed to be grouped and coded, and because of the wide variety of responses only 46 of the responses could be used. These are presented in Figure 4.6:

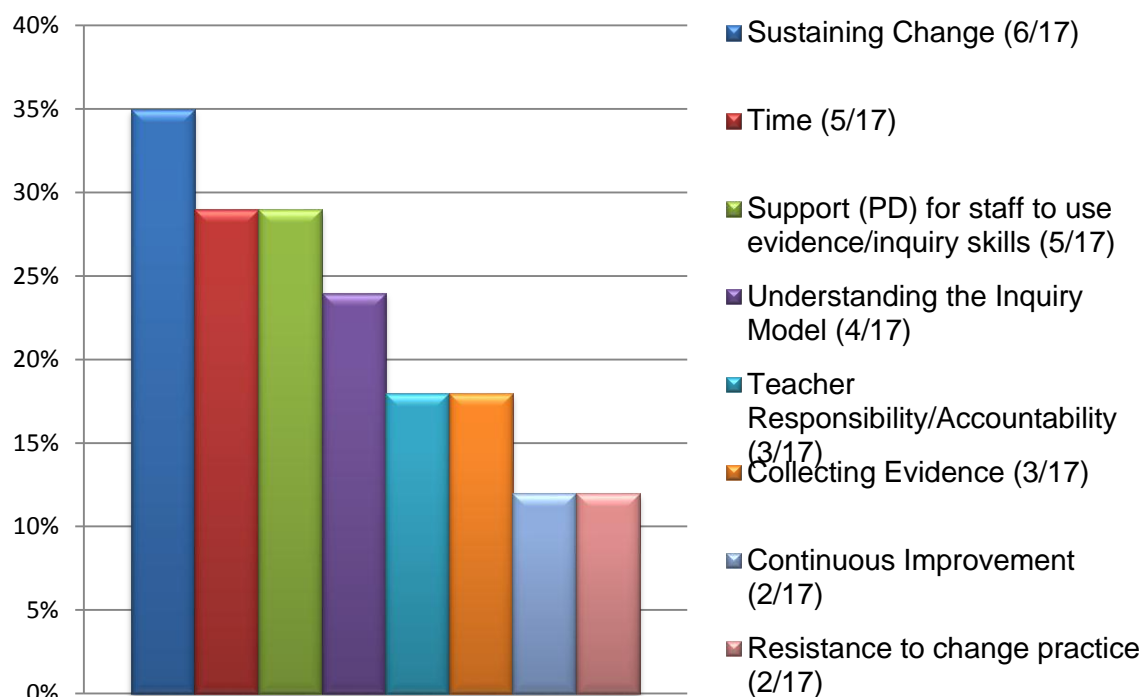


*Figure 4.6: Common terminology or phrases used for teaching as inquiry/professional inquiry based practice in organisations*

The most common terminology or phrases used in primary organisations in this study for teaching as inquiry or professional inquiry based practice was 'evidence/data informed' from 59% of participants. This was followed by 41% of participants that were coded with the term 'improved/effective/best practice/teaching' and then 35% that were coded as 'formative assessment practices'. Reflective practice was mentioned five times forming 29% and 'professional inquiry/practice/learning' was used four times forming 24%, as was the term 'review'. The mention of an 'inquiry cycle' appeared three times (18%) and only two responses actually identified with the term 'teaching as inquiry' in their organisation forming 12% of the participant response. Two responses (12%) involved 'learning conversations' or were related to 'student learning targets' and finally one response (6%) stated 'action research' as a term used in their organisation.

Question six asked leaders to identify the most significant challenge or challenges they encountered as leaders when implementing teaching as

inquiry or professional inquiry based practice in their organisations. Respondents were asked to record one to two sentences. There were 22 individual responses that have been grouped and coded into eight themes; these are shown in Figure 4.7:



*Figure 4.7: Challenges leaders identify when implementing professional inquiry based practices*

The most significant challenge identified by leaders was sustaining change in practice for staff with 35%; the leader comments related to sustaining practices when introducing new staff and creating multiple opportunities for staff to engage and share best practice. Time and support for professional development for staff to use evidence and inquiry skills was also a recurring factor for leaders with 29% of leaders identifying these as challenges. This was followed by 24% of leaders believing that staff needed more understanding of a professional inquiry model. Leaders found teachers accepting responsibility for inquiry as part of being professionally accountable equal on 18% with collecting evidence of improvements. Lastly the themes of inquiry being a continuous improvement cycle and having staff resistance to change practice were identified from 12% of the respondents. Several of the leader comments could be coded with more than one theme, the following

responses reflect many of the challenges that leaders identify which reveal the wide range of views and complexity inherent in getting staff to engage in inquiry at a deeper level:

*It has taken many years to build the values and beliefs that underpin this type of learning culture. Believing in its importance and having the patience and resource to grow this from the shared vision created by all. It is an action learning process that is constantly evolving.*

*To develop depth and a sense of teacher ownership rather than compliance.*

*Personal teacher professional knowledge. Providing support and professional development. Having consistency of practice. Teachers actually using the evidence to influence their planning and teaching.*

*Insure all teachers set targets and use assessment data to inform practice – make changes to teaching daily after assessing progress. Having team meetings where everyone shares best practice and make sure we have a culture where teachers ask for help.*

*Providing teachers with a clear, sound understanding of the purpose/importance of inquiry and a manageable model to follow.*

### *Summary of base-line questionnaire*

The findings of the base-line questionnaire provided some back ground information on systems that leaders in the study might employ and challenges that leaders may encounter in their organisation for establishing a culture of professional inquiry before undertaking the semi-structured interviews. This data did prove useful in helping to identify themes for coding interview comments and for providing a comparison across the methods. The findings from both methods in this first phase attempted to provide a context for the next chapter which presents the case studies of each research location.

## **CHAPTER FIVE**

### **FINDINGS FROM THE CASE SCHOOLS**

#### **INTRODUCTION**

The findings in this section form phase two of the data collection from the ten semi-structured interviews and documentary analysis of school created documents are presented using the case study design with the findings separated into each research location. This separation into case sites is deliberate due to the fact that inquiry is driven by the specific culture and dynamics created within each unique location from the leadership of the school.

This chapter starts however with an aggregation of the understandings of teaching as inquiry across the research locations to set the scene before looking specifically at each case school. However, there was limited documentation gathered from the research locations. The documents that were supplied from two of the three research locations (School X and Y) a small analysis has been undertaken to provide partial evidence of the systems and practices for implementing and sustaining teaching as inquiry in each location. In obtaining documentation from each site my intention was not to form a critique of each document, but to provide evidential support of the systems in place at each location in order for me to gain a fuller understanding of the context. Each case concludes with the challenges that have arisen for leaders and teachers when implementing inquiry based practices within each research location. Finally, to conclude the chapter these challenges are collated across the case schools. To protect the identity of the participants the following codes presented in Table 5.1 will be used to identify each individual with their comments.

Table 5.1: Participant coding

| <b>Designated Position</b>   | <b>School X</b>  | <b>School Y</b>                           | <b>School Z</b>                                |
|------------------------------|--|---|--|
| <b>Principal</b>             | Principal X (PX)   | Principal Y (PY)                          | Principal Z (PZ)                               |
| <b>Leader (non-teaching)</b> | Associate Principal: Non-teaching Leader X (NTLX)                    |   | Deputy Principal: Non-teaching Leader Y (NTLZ) |
| <b>Leader/Teacher</b>        | Teaching Team Leader X1 (TLX1)<br><br>Teaching Team Leader X2 (TLX2) | Deputy Principal: Teaching Leader Y (TLY) | Teaching Team Leader Z (TLZ)                   |
| <b>Teacher</b>               |  | Teacher Y (TY)                            |  |

## Understandings of Teaching as Inquiry

To gather the understandings of teaching as inquiry all participants were asked to define what they thought teaching as inquiry was and what led them to reach this understanding. Many of the understandings from the ten interviews are evident in the Principal's definition from School X:

*Teaching as inquiry is actually teachers inquiring into their practice. So, it is teachers looking at student data and that data informs their practice, best practice, it informs their planning, it informs their review, reflection and then moving through, so it is that next step learning, and it's a constant, it's cyclic, and we put a lot of emphasis on it here. It's teachers being informed all the time by the data that they are collecting, so they are making those judgements on learning and they are taking those next steps. (PX)*

In looking at all the responses five themes for understanding teaching as inquiry could be ascertained which will be addressed individually; these themes are that teaching as inquiry is:

1. Teacher centred through changes in teaching practice
2. A cyclic process
3. A reflective practice
4. Based on using evidence
5. Improved outcomes for teachers and students

*Teaching as inquiry is teacher centred through changes in teaching practice*

Nine of the ten participants mentioned that teaching as inquiry was teacher centred and based on changes to teacher practice. The participants from School X all had a similar understanding of this; the non-teaching leader commented that they saw teaching as inquiry as “teachers really delving into their practice at a deep level”. Both the teaching leaders of School X saw teaching as inquiry as a process, they commented:

*It is the process that teachers should work through, in order to refine the teaching and learning that is happening in the classroom. (TLX1)*

*It is the process that you go through to be an effective teacher. (TLX2)*

While in School Y the Principal gave an open understanding of inquiry because in this school both teachers and students investigate using the same inquiry model:

*My understanding or definition of inquiry is it is a process in which you have a starting point, and it is often cyclical and so here at School Y what we tend to find in talking about our model and so on is, we have the question of What? So what? and, Now What? and that sort of goes back right around and that informs our levels of reflecting where we are at and what we need to work on. So, it is like a self-improving circle for me. (PY)*



### *Teaching as inquiry is a cyclic process*

Six of the ten participants understood teaching as inquiry to be a cyclic process. Each described this cyclic process and the following quotation is representative of these:

*...teachers are looking at what is happening with their kids and they are saying these are all the things I have implemented, what worked, what didn't work, and if something didn't work then what do I need to change as a result of the findings that I've had. So it's a cyclic thing that keeps going around so you have your information, you carry out your teaching and learning, and then for the kids that were successful, identify why it was successful, what can I keep doing, and then oh we've had a little bit of a stuck point, what do I need to do to change to move forward for those kids. (NTLX)*

### *Teaching as inquiry is a reflective practice*

All of the participants indicated that reflective practice and reviewing their current context was part of the teaching as inquiry process. One teacher leader commented about this in general terms:

*So it is teachers reflecting on their practice and thinking about if they have been effective in it, and then questioning areas that they think they could improve, focusing some key questions, looking into their practice, trying out new strategies and gathering data to see if they have made a difference in their approach and reflecting back on the process. (TLY)*

Two teachers commented about the personal impact that teaching as inquiry as a reflective practice had for them personally:

*I think I've always been quite reflective but it's putting it into a process has been really good, for me personally has been really good, rather than just reflecting and now what? Now I know what to do after the reflection and the process I need to work through. (TLX1)*

*As a classroom teacher I am continuously thinking about, why am I doing this? Is it going to benefit, which children will benefit from what because there is a wide range of children in the classroom. So, at every stage, obviously working off the base-line data ... and then*

*going on from there with what to do best and how it works. (TLZ)*

### *Teaching as inquiry is based on using evidence*

Seven of the ten participants specifically mentioned gathering and using data to inform the teaching as inquiry process. All seven discussed using evidence as a base-line and predominately the evidence base was formed using assessment information from testing or formative assessment practices. While in School Z the principal introduced that while many decisions can be based using evidence from hard data, that soft data is also extremely valuable:

*So Teaching as Inquiry is to do with evidence based practice and evidence changes and innovations based on, or even just practice, based on evidence, based on data, based on knowledge about the children. And that doesn't have to be hard data obviously; it can be anything from your normed hard data, right through to teacher intuition, that is extremely valuable, that comes from spending time with children, and observing them and knowing them inside out. So it is that whole spectrum of evidence across from that intuition, from knowing people, through to that hard data, and everything in between to informing your practice. (PZ)*

### *Teaching as inquiry has improved outcomes for teachers and students*

Eight of the participants identified that there were improved outcomes for the teacher, student or both when discussing their understandings about teaching as inquiry. I asked further whether in their opinion did they see teaching as inquiry as merely raising student outcomes or that a huge component is actually on changing teacher practice. Two participants identified the focus for teaching as inquiry on raising student outcomes; four participants identified the focus as improving teacher outcomes when they commented:

*...so you are changing practice, you are changing belief systems, you are changing pedagogical knowledge, you are changing curriculum knowledge, and so there are stepping stones that you know, you must go through. (PX)*

*...it is definitely changing my practice and the student outcomes is the bonus. (TLZ)*

Four participants identified teaching as inquiry as improved outcomes for both which could relate to the symbiotic or reciprocal nature of learning:

*My opinion there is that in order to raise student achievement, you have to change your practice to meet the needs of the student. So, you can't have one without the other... I mean the goal is to raise student achievement and how to get there is your teaching and you may have to change to get there. (TLX2)*

*I think that changing teacher practice improves student achievement in lots of ways – it is one of those chicken and egg things isn't it? You need teachers to engage in meaningful inquiry to look into their practice so they can help with student achievement, so one has to come before the other I think. (TLY)*

The principal of School Z identified that there could be a gap in the staff understanding of teaching as inquiry when reflecting on this question based on the current professional development focus at School Z:

*That's really interesting, I think with the sort of professional development that we've got, I think the staff would see it if anything the emphasis would be too much on improving their practice and not enough on linking it directly back to student outcomes, and when I say linking it back to student outcomes, I guess I am meaning hard data on student outcomes. So, all of our PD links back to formative assessment but primarily I think they would see it as improving their practice and not enough linking back directly to hard data student achievement outcomes. They would see it as the learning environment and the engagement and the variety of programmes and the depth of programmes, but taking it a step back is probably where our gap is. (PZ)*

I was interested to understand how participants reached their understandings of teaching as inquiry, therefore I asked what has led or informed participants to reach their understanding of teaching as inquiry. From the responses I was able to group the sources informing these understandings which are represented in Table 5.2.

*Table 5.2: Sources that inform understandings on teaching as inquiry*

| <b><i>Influences on understandings</i></b> | <b><i>Total Responses</i></b> | <b><i>School</i></b> |                 |                 |
|--|-------------------------------|----------------------|-----------------|-----------------|
|  |                               | <b><i>X</i></b>      | <b><i>Y</i></b> | <b><i>Z</i></b> |
| The school developed model                 | <b>5</b>                      | 2                    | 3               |                 |
| School Professional Development            | <b>5</b>                      | 1                    | 2               | 2               |
| Assessment for Learning Contract           | <b>5</b>                      | 4                    |                 | 1               |
| Professional Readings                      | <b>4</b>                      |                      | 1               | 3               |
| Years of Experience                        | <b>4</b>                      | 1                    | 1               | 2               |
| Being a reflective practitioner            | <b>4</b>                      | 3                    | 1               |                 |
| The NZC model                              | <b>2</b>                      | 2                    |                 |                 |
| Post Graduate Studies                      | <b>2</b>                      |                      |                 | 2               |

The school context is identified as having a significant influence, with half of the participants indicating that school based professional development, the school developed inquiry model and specifically involvement in the AfL professional development contract influenced them. The next three sources four participants each identified as being informed from professional readings, years of experience and being a reflective practitioner. Lastly two participants acknowledged the influence from the New Zealand Curriculum model of teaching as inquiry and independent post graduate studies that some of the participants engaged in.

## **FINDINGS FROM SCHOOL X**

### *School X: Espoused systems and practices*

School X has established its own model of professional inquiry called the Effective Practice Cycle or more commonly amongst staff it is referred to as the Donut, represented in Figure 5.1.

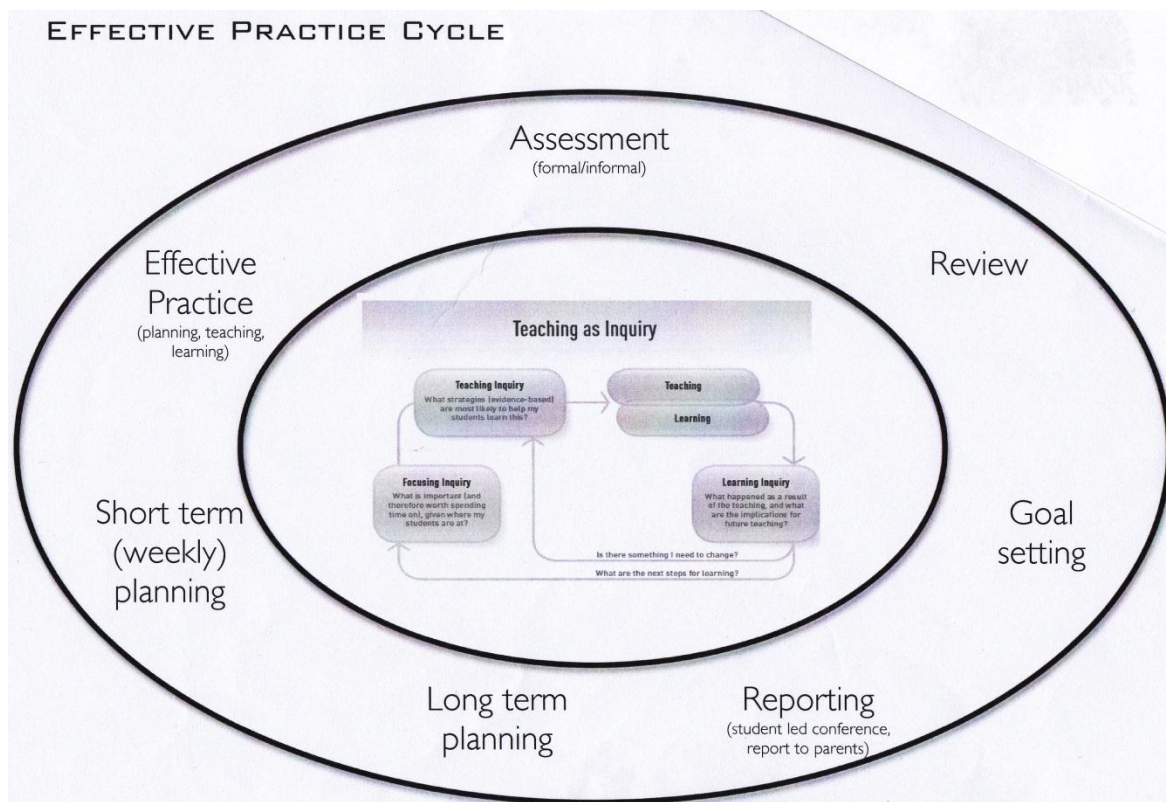


Figure 5.1: School X Effective Practice Cycle

Source: School X document

The Effective Practice Cycle was developed by the Associate Principal (NTLX) after much professional learning and discussion with the staff. The school model is in its second year of implementation and at the centre of the cycle the NZC Teaching as Inquiry diagram (Ministry, 2007, p. 35) has been incorporated into the design. The Principal describes the process of creating the school model:

*We created one; we call it the Donut, and NTLX created it after a lot of teacher professional learning. So, from those discussions NTLX put together all the effective practices with Teaching as Inquiry in the middle of the model, and on the outside are all the words that impact on the Teaching as Inquiry, and each one of those hyperlinks through to either exemplars or methodology if you like to what that looks like. And, that was all done with all the teachers working together, to work through that whole what is effective pedagogy. (PX)*

Much of the understanding of the functional aspects within this model are based on practices promoted in the Assessment for Learning (AfL) contract

that the school has been part of for some time. The Associate Principal explained the model and the AfL impact on the school model:

*... as it states there assessment is really at the heart of it and if we could have this [assessment] as a floating word – assessment would actually run all over the page, it's not really something that is at the top, it is just something that happens all the time. So, what we are looking at here is we don't have segments between these words because we see each one informing each other and as you carry out your review because you have done some assessment, that informs your planning, that informs your goal setting, that informs your reporting, so each thing has a link to each other. So, the reason that we have developed that is because we don't see it as linear, and things, you know, you are doing your review, which informs your long term planning and the weekly planning, oh, but actually you've just done a little bit more assessment or because you have observed something so you have to go through that process again... The effective practice cycle, so we talk about it as the link, we really refer to it as the links between assessment, review, planning, reporting, and goal setting. (NTLX)*

The Principal and Associate Principal were asked whether there was a specific part in the school's policy or in an implementation plan that outlined the model and what teachers were expected to do. Both acknowledged that at this stage the school model was not included in any policies however the principal stated:

*I don't know that we've got it written down per say, but it is an expectation, and it is one that is talked about all the time, and it's part of the cycle that they work through. So, each term it is part of that cycle that they work through. Teaching as Inquiry is the centre of everything we do, and then around the outside, in no set particular order, are all the things that you are accountable for with this effective practice. And, this is deliberate acts of teaching, so you are looking at your deliberate acts of teaching through your Teaching as Inquiry and where do these things sit (pointing to the model). (PX)*

The Associate Principal added:

*We don't have it in policy, but what we have done as part of our curriculum plan, is that under each curriculum area we have explored effective pedagogy. So a lot of our AfL strategies, which you know we want people to be actually referring to just as effective pedagogy comes under that. So, things like that you are being clear about what is being learnt, that you are using your assessment to inform this and you are involving children in that all the time. So, in the curriculum map it is there and as procedures it is there, but it is not yet in our policies. (NTLX)*

The Principal and Associate Principal identified that staff were expected to engage in the Effective Practice Cycle regularly, as part of what they do on an on-going basis. Twice a term there were also planned staff meetings that focused on Assessment for Learning practices and the principal explained:

*Well we have two staff meetings per term, which is focussed on AfL strategies, and part of that is Teaching as Inquiry. If you think that Teaching as Inquiry sits up here and all these other things sit under here, so Teaching as Inquiry is IT, everything else comes off it, so there is your umbrella and everything else comes off it. So, AfL comes off it. ...So we have two staff meetings per term, teachers their reporting to parents is from their reflective statements, they prepare, they have reflective statements that come through... these are on-going. They set their student goals with the children, and then they are reflective against those and at the end of the term those reflective documents are handed in. So, they inform the reporting, but they also inform our reviews. So, all the way through, you should see the teacher being reflective, change in planning, teacher being reflective, change in planning, so it is a weekly cyclic thing. Is it happening right across my school at the moment? No, but it's got pockets. It's gaining momentum because that's the expectation and slowly we are getting more and more people on board. (PX)*

Both the principal and associate principal expect that the team leaders of each year group level will monitor whether teaching as inquiry occurs and they are kept informed on the implementation progress from the team leaders at weekly management meetings. A further method of ensuring that the

Effective Practice Cycle is in use is through regular AfL observations and discussions that the principal and associate principal are part of with staff. The principal explained:

*the AfL leaders work with 2 teachers, and those 2 teachers... so for example you might observe and then feedback to say teacher A, and then teacher A would observe me and then feedback to me, and then I would observe you, and so that is then triangulated as a set of practices – and so there are 7 of us that shadow those, to make sure that is being lifted and not just, you know if you are a scale A teacher it is very difficult to give another scale A teacher critical feedback, so we shadow to make sure that there is that safety, but also that it is Model 2 theory and that we are getting that depth. (PX)*

Professional dialogue was promoted (particularly as part of the AfL practices) and all staff have participated in training using learning conversations. The principal stated that Model 2 theory of learning conversations following Michael Absolum's (2006) work has been shared and that the management team discuss issues in order to develop skills across the staff, they explained:

*– so this morning when we were discussing an issue that some of our teachers might get in to, we were role playing we can get into that Model 2 theory because when you are face to face it can be very difficult and this morning our QLC was around that, and how do we approach this, and how we develop leaders out of people who actually don't really want to be leaders and how do we give people that confidence that they can actually do these things, and you know it goes back to what people perceive as leadership. (PX)*

The associate principal acknowledged that there were other systems that supported the Effective Practice Cycle. Planning is seen as a personal document that teachers use and while there is no set template for planning the school has created guidelines for planning on a Google document which is seen as a criteria that teachers use to ensure there are essential elements evident in plans across the school. There is however a set template for the review of planning and learning goals. This format while initially being an 'end of term' review document is increasingly being used as 'working document' and updated frequently by staff as they are increasingly engaging with the Effective Practice Cycle. The monitoring of planning and review is



predominately done by team leaders who inform the senior leaders of the school, however all planning and review formats for each class are also on a shared electronic drive that can be checked at any time from any staff member. The management team are also informed through reading weekly team meeting minutes which are also stored electronically for retrieval and review.

The principal also mentioned that student achievement data is discussed in purposeful ways at senior management, management and team meetings. The use of student data is also being incorporated into the appraisal process, and is seen as a way of further enhancing the school's model. Principal X discussed the use of data:

*We are now working on our appraisal practices for our scale A's so that our team leaders have just moved onto a different sort of appraisal that is all based around student data in their team. So, it is around, this is the data, where is the evidence coming from for that, whether what they are doing within their team is lifting and is accelerating student achievement. So that is changing the appraisal system that we have been using... (PX)*

The Associate Principal has a school wide responsibility for the collection of data and frequently meets with the Principal to keep them informed on new evidence. Staff also contact the Associate Principal directly if they want help interpreting data and how to incorporate the data into the use of the school model, planning and review process.

I was interested to find out whether the new RTC had made an impact on the use of the Effective Practice Cycle and the school leaders were asked whether they thought teachers would know that by engaging in professional inquiry they were fulfilling part of the new RTC. Both leaders agreed that staff would probably understand this however the principal did caution:

*It would depend on who you spoke to, some have picked up on it pretty quickly and there are still a few that are needing maybe one or two good discussions around that. (PX)*

I wanted to also understand what the principal believed an effective school leader needed to ensure that teaching as inquiry occurred in their organisation. The Principal of School X believed people with the right attitude were at the heart of enabling this and commented:

*People who are passionate about their job, people who are prepared to see this as a challenging time but that it will lead to and promote accelerated learning, within themselves, well within any learner really that we are working with, but also teachers who are quite visionary and who see teaching as inquiry as being that way forward. (PX)*

#### *School X: Documentation*

Two pieces of documentation were obtained from School X which is not sufficient to form a full understanding of all the systems to support teaching as inquiry. The two documents provided are:

1. The school model for teaching as inquiry
2. A termly review template

These two documents primarily show the model in use at School X and the termly review template that helps teachers to identify learning goals for students and what support will be required to raise outcomes.

The first document is the model of teaching as inquiry employed at School X, namely their 'Effective Practice Cycle' (see figure 5.1). This document is intended to visually prompt teachers of the process and elements that are integral to the teaching as inquiry process. The model was developed in consultation with the staff and represents effective pedagogy and professional practice at School X. The school model is influenced by the NZC and incorporates the NZC model of teaching as inquiry as the central component of the figure. School X is in the process of developing further documentation to support each element of the model. The termly review template is one document that has been produced to provide support of the Effective Practice Cycle.

The review template is to be used by a classroom teacher as a guide to structure their termly reflections on the learning and teaching goals for each reading, writing and mathematics group. The review template is a four part table that focuses on: 1) what has been achieved; 2) what needs to be learned next; 3) what will the next teaching strategies be to address the next learning steps; and 4) what support is required. Teachers are expected to complete the reviews and save them on a central computer system where they can be checked by team leaders and senior management.

#### *School X: Practices in action*

Two teaching leaders were interviewed and it was evident that the systems and practices described by the two senior leaders were in actual use amongst most of the wider staff because of the alignment of findings between what the school leaders and teachers revealed. TLX1 and TLX2 acknowledge the widespread influence of AfL strategies in the Effective Practice Cycle and that these strategies are reinforced through staff meetings, management meetings and when they lead their own team meetings. TLX1 and TLX2 both confirm that the staff use learning conversations that are influenced by Model 2 conversations from their AfL training and that support is available regularly from the leaders at management meetings. TLX1 and TLX2 also have participated in local seminar days for school leaders that have contributed to their understandings of learning conversations. TLX2 also acknowledges further post-graduate studies to their understanding and specifically mentioned Viviane Robinson's use of Argyris' (1990) Ladder of Inference work contributing to their use of learning conversations.

TLX2 engaged with teaching as inquiry on a daily basis, reflecting on lessons and planning and making anecdotal notes and adjusting future planning based on the new evidence available. Further to looking at evidence and these adjustments TLX2 also identified that systems created for observation and feedback help to inform the teaching as inquiry process and commented:

*Well through our appraisal observations and AfL observations we have people come into our classrooms or we go into other peoples classrooms and we are*

*observing them. So, we are getting feedback from the observations and you are reflecting and monitoring yourself but also helping to support them coming in, so it would be through appraisal and our contract, our AfL contract. (TLX2)*

When asked if the school model and systems help inquire into their specific practices both teaching leaders agreed. TLX2 added that the termly review document and process is one that may need refinement to help the teaching as inquiry process. TLX2 explained:

*Yeah the reviews, when we first started doing them, it was just at the end of the term and now we are talking that they should be like an on-going document... so it is not just that reflecting but probably monitoring it throughout the term more. (TLX2)*

While TLX1 commented that improvements to the appraisal process could help and recommended:

*I think as part of the appraisal system it needs to be made a stronger link, and I know we have talked about that at leadership meetings too, that at the moment the appraisal system is a little bit, kind of removed, well not removed but kind of it just happens to you kind of thing, ... for some people I don't think it really impacts much and it doesn't play a huge part in their own personal reflection so I think that needs to be tightened up a little bit or a lot more and changed. (TLX1)*

At present the school model is an expectation however it is not employed by all staff members and TLX1 discussed that the desire for the Effective Practice Cycle to be made compulsory for all staff members to implement and stated:

*I think it should be compulsory though, because I think how can you be an effective teacher if you are not inquiring into your own practice? Like, I mean I don't see any other way that you can be. (TLX1)*

One of the teaching leaders identified that they were aware that by engaging in professional inquiry it was fulfilling a component of the RTC, whilst the other showed faith in the established school systems and stated "well I wouldn't know specifically but I assume that everything we are doing would be in alignment with your registration" (TLX2). The appraisal process and review

procedure were also identified by the senior leaders of the school as areas for improvement in the teaching as inquiry process at School X.

### *School X: Challenges*

At School X the perceived challenges for implementing professional inquiry based practices from the school leaders were based on teacher knowledge, the timing of the NZC implementation when the education system as a whole is under political pressure of National Standards and staff resistance. While the two teacher leaders had challenges with personal demands on time, being too self-critical, knowing whether they understood what they needed to do to change for self-improvement to meet the needs of students and the attitude of team members towards changing practice too.

## **FINDINGS FROM SCHOOL Y**

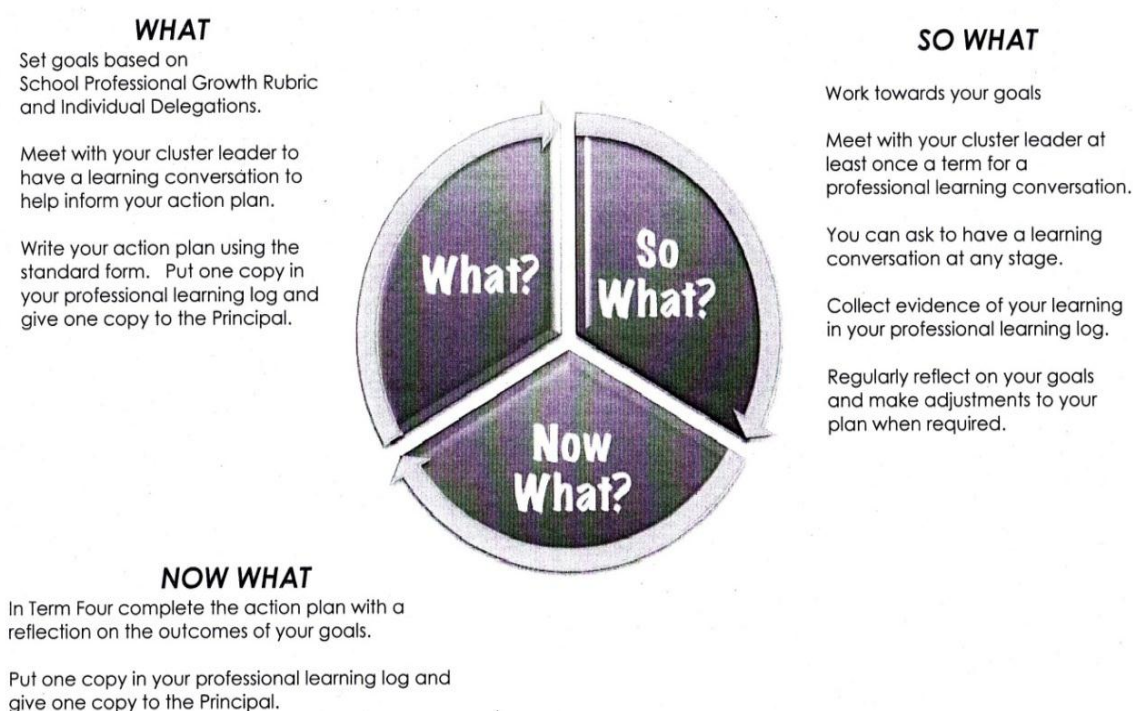
### *School Y: Espoused systems and practices*

School Y over the last eight years has been on a long learning journey enlisting the services of an outside facilitator to help support a collaborative learning culture for both students and staff. The principal has a strong vision for inquiry learning and the values and foundation for his understanding is reflected in the school culture, he describes this:

*Well it is coming back to engagement, and it's coming back to working collaboratively, and it's coming back of wanting to move forward but based upon sound data and analysis, so we are not sort of making things up, and when teachers and children can see what: i) the What? is, and ii) the So What? we need to do about it, and iii) then the Now What? is the action part of it. So that is sort of constantly informed as part of our culture, that we sit here and that we inquire, and that we can do a lot of questioning, and paraphrasing to form common understandings or collaborative understandings. (PY)*

This learning culture promotes inquiry for both students and staff under a model called the Dynamic Learning Model; this three stage model is modified

for staff use and is shown in Figure 5.2. This model is one dimension in how School Y enables teaching as inquiry to occur.



*Figure 5.2: School Y Professional Growth Model*

*Source: School Y documentation*

The Professional Growth Model is used in conjunction with a Professional Growth Rubric; a matrix of teacher responsibilities and teacher practices that have been established through consultation and negotiation with the staff. The Professional Growth Rubric is founded on the school's own Learning Pathways curriculum and exemplifies the school's understanding of effective pedagogy. The stages of the model of: 1) What?; 2) So What?; and 3) Now What? guide the language that is used by students and teachers to discuss learning and forms the basis of the termly reviews that are undertaken by each team to review the achievement of students and to reflect what changes to teaching practice will need to be addressed in the next term. Both the Principal and Deputy (TLY) believe that the team reflections each term help teachers inquire; this is reflected when they commented:

*...that sort of follows a very clear inquiry path as to moving forward, so out of that, that is what their focus is for the following term and then they come back at the end of each term again with the data that they have gathered and they go through this process again, so of always moving forward. (PY)*

*...we've got the teaching and learning reflections that we think really inquire into the teachers practice that we do every term... the clusters do that together and we try to follow the same inquiry model that we use in our classrooms as much as possible and then the teachers work through a goal setting sheet, that they actually gather data through as well, and we've found that to be quite effective. Combined with peer coaching really, it has made a huge difference to professional learning, (TLY)*

The Principal believes that the termly reflection and the subsequent discussions on the data and teaching practices occur frequently in the school and commented on this practice:

*Yes, that is embedded, like they meet some a week, some a fortnight, depending on the needs, and so they are constantly coming together and they do a lot of moderation of when they are pulling data together, so there is certainly moderation of reading and writing in those particular areas so, and they come together to talk about this (end of term reflection data sheet), this doesn't sort of get filed and left for the term they have these in their folders and they know their actions so they talk about the programmes that they are working on and so on, so that's an on-going conversation. (PY)*

The rich discussion skills needed by staff to engage in these collaborative and inquiring conversations have been developed over many years. The senior leadership team model and reinforce these conversation protocols with staff and students and all staff have had professional development in extending these learning conversations with colleagues and based on facilitation with the outside expert the principal described this:

*So it is teaching them not to sort of be the font of all knowledge and that they actually question a lot more than provide statements. It's about listening, pausing, paraphrasing before they inquire and so the whole thing is sort of an open process. (PY)*

The language of learning within the classroom is also inquiry based. The Deputy Principal states that the AfL practices promoted by Michael Absolum's (2006) work are a feature in the classroom that helps teachers to engage with their students and engage in effective pedagogy. This AfL framework and the productive conversation framework promoted by the outside facilitator influence the exchanges between staff, students and the learning community as a whole.

The Professional Growth Model, rubric and an action plan form part of the school's established appraisal system. The principal also discussed that this is an inquiry process that the students are part of too:

*...if we talk about the appraisal process for example it is also based upon the inquiry model, and so the teachers actually share one of their appraisal goals with the students on what they want to do and so the students are also constantly giving them [the teachers] feedback on how they are getting on with their appraisal goal and so on. So, things keep constant and it is constantly in their face term by term. (PY)*

The deputy principal also acknowledges that peer coaching is a key component of developing learning conversations and is part of the appraisal system at School Y. The peer coaching is described:

*So, it is with a colleague of your choosing, we – so last year we set it up quite formally and people opted in and we scheduled out the release time for it, this year it is more of a, more of the onus is on the teachers to make the arrangements, so we have a pre-meeting where we discuss goals and have a coaching conversation, to try and draw out what they are really looking for, then we go and observe them in the classroom, if that is an observable practice that we are looking for, ... and then after that there is a feedback session, where again the coach's job is just to draw out, paraphrase, question further so that we can go a bit deeper into it, and that gets repeated as often as the peer coaching people need it. (TLY)*

The principal is kept informed that the Professional Growth Model is working in the school through on-going conversations and the documentation that has been firmly established. The team leader of each part of the school is the first



person that checks on the weekly progress of teachers in their team and facilitates discussion on a team or individual basis, and then informs the principal of progress made at weekly management meetings. The principal also plays a role in the appraisal process and therefore has established relationships with each staff member, the principal comments on this role:

*Well these documents here are key coming through to the senior leadership team as a combined thing. How do I know how it is going on? Is because it is a constant conversation especially because I cover work with all the management units... I oversee and work with and support, so there is a lot of professional growth ... I will be making sure they get the support that they need to lead those particular areas and so on, so that is quite powerful in terms of on-going professional growth. (PY)*

The principal identified that the ERO commented on the culture evident from the systems developed and reinforced from the leadership of the school and added:

*...it came through very, very strongly with ERO is the high level of congruence between the way that we work as a staff and what we expect within our classroom. So, what I am saying by that is that the staff see themselves as a School Y learner. We want the children to be School Y learners but we also see ourselves as School Y learners so we take on the attributes of being a leader, a contributor, a communicator and a lifelong learner as well. And when that is coming through... you get that strong lines or lineage coming through, that's when you've really got a powerful learning community going. (PY)*

This congruence was confirmed by the classroom teacher when I asked why they think the principal has established inquiry systems and practices that are aligned for both students and staff in their learning community and commented:

*He hasn't actually told me why he does that, but I think it also helps me to appreciate what we are asking of the students because we are learners as well. (TY)*

The principal of School Y thought that staff may not have made the link that by engaging with a professional inquiry process it fulfils a component of the RTC. The school has adopted the new RTC into the appraisal process which

is heavily based on professional inquiry and because it has been established for some time those connections with the RTC may not be overt; the principal acknowledged:

*It is about what we do and that's what we believe in, I wouldn't want to be a draconian person and say we are going to do this because of that [the RTC] – it is something that we do, and we have done it for many, many years is the inquiry model because we know it works for children and for staff where we can engage them. (PY)*

The deputy principal confirmed that they knew inquiry was part of the RTC and as a tutor teacher was also ensuring there were links in the advice and guidance programme for provisionally registered teachers.

Principal Y was asked what skills they believed an effective school leader needed to ensure that teaching as inquiry occurred in their organisation. The Principal commented that having a strong understanding of the importance of inquiry across the whole community was important; they commented:

*I think you'd probably have to start with a belief system that this is what works, that we believe in it and it is a way of moving forward. (PY)*

The Deputy Principal also confirmed that building a learning community was an important skill for a school leader to promote in which staff could see themselves as learners too. TLY reflected on the skills of Principal Y and added:

*Vision ... the ability to be flexible for the staff, that we are all at different places and you don't know what you don't know really, a willingness to see their staff as learners and to really encourage them to be learners. So to be open to mistake learning and having the language skills to be able to work through that with staff. (TLY)*

#### *School Y: Documentation*

School Y was the only research location where several sources of evidence were gathered to obtain a fuller understanding of the systems and practices

evident from the curriculum to the classroom of the professional inquiry process that occurs. From School Y I was able to obtain seven documents:

1. The curriculum delivery plan
2. Appraisal Flow Chart
3. Attestation document
4. Professional Growth Model (figure 5.2)
5. Professional Growth Rubric
6. Professional Growth Action Plan
7. Team Reflection Document

While each of the seven documents do (in some form) support the process of professional inquiry, from analysis of each of the seven documents I would like to highlight four documents that key practices that support teaching as inquiry directly. In document one, the curriculum delivery plan there is a clear linear process outlining the schools expectations for staff on what is effective pedagogy, related to each NAG and was developed in collaboration with the staff. From evidence cited on the Professional Growth Rubric (document 5), teachers highlight on the matrix where they believe they fit along a five point continuum with the following five descriptors: 1) little in place; 2) developing; 3) moving in a number of areas; 4) coherent and embedded; and 5) aspirational and innovative. For each of the eleven elements that are important for the school vision and learning pathways model there is a descriptor that the teacher highlights yearly showing the movement they have made under each element and working towards being aspirational and innovative. The evidence collected from this rubric informs the teacher's action plan.

The professional Growth Action Plan (document 6) is a template to plan for the achievement of professional goals over the year. At the top of the form it states the underlying values and expectation of staff of the document:

*At School Y an aspirational and innovative adult life long learner is self-directed; they are able to find opportunities for professional growth. They strive to share their learning with others to enhance the school vision. (School Y Document)*

Teachers then record their goals and highlight the learning options and record the action plan of how they will achieve these goals. The next section has a clear expectation that the teacher is responsible to collect evidence of their professional learning and records several options. There is a section to date the termly learning conversation that the teacher will have with their team leader of their progress towards achieving the goals over the year and then finally once a goal has been achieved a section to record how they have impacted on their teaching practice, student outcomes and professional responsibilities. This action plan is used in conjunction with the Professional Growth Model (Figure 5.2) described earlier.

The Curriculum Plan of School Y is set out under each of the National Administration Guidelines (NAGs). Under each NAG the Principal and staff have collaborated and listed the expected evidence that should be present in practice to illustrate the NAG specific for School Y. For example under NAG 1: Curriculum Delivery, one of the expectations of evidence is “Daily planning to reflect evaluation of previous learning with sufficient detail to show the classroom teacher is reflecting on their own quality teaching practice” (School Y document). Furthermore under NAG 3: Personnel, it states that “All teaching staff to use a professional log and to be involved in professional learning conversations to assist them in developing their potential” and to “demonstrate a commitment to their on-going learning by continually evaluating and reflecting on their teaching and action areas where it can be improved” (School Y document).

#### *School Y: Practices in action*

The inquiry models and collaborative culture that the Principal and Deputy discussed are practices and systems in actual use at School Y. These systems and practices are part of the culture of School Y and have taken strategic thought and time to develop. To confirm the espoused systems and practices I interviewed a classroom teacher (TY) along with the Deputy Principal (TLY) who also has classroom teaching responsibilities. The Deputy Principal reflects on their practice on a daily basis and then how they think about their professional goals:

*Every day! So, I set goals – probably every term, new – so it might be that I have a big goal and this is the next step of what it is, so as a school, the staff seem to set quite big goals that take a year to sort of implement some of them, and some work on some that are really focussed for a term or with peer coaching I tend to do them for shorter terms and be really focussed. For example, I might just look at my language for a term and when I've thought I've kind of got the handle on it, I'll move onto something else, it depends on how big the goal is really. (TLY)*

The classroom teacher that I interviewed from School Y was in their second year of teaching. Whilst being a PRT and having a specific advice and guidance programme for their developing career, the classroom teacher confirmed that systems and practices for professional inquiry are embedded across the school. They confirmed that all staff have been involved in learning the language of conversations from AfL practices and those they have been taught from the outside facilitator, they contributed:

*Yes, last year when the outside facilitator came in we started Peer Coaching and it taught us and it is really difficult to get used to it, but how to actually listen, paraphrase and, so if I was observing someone else, how do I actually ask them questions to help them, sort of find their own learning rather than giving them the answers, and how important it is to just sit back and listen, rather than interrupting and that kind of thing. But it seems there is quite an art to it... It doesn't come naturally, so that is what I am still learning. Like I was saying in the classroom teacher language is something I am really interested in and want to see more of because it is not natural yet, and I want it to become natural. (TY)*

The classroom teacher is well supported and provides documented evidence of their professional growth journey to me, freely sharing their development on the Professional Growth Rubric and subsequent Professional Growth Action Plan and personal reflection log. All staff are responsible for collecting personal evidence of their goals and this is a common practice; the classroom teacher discusses the personal reflection log:

*Everyone has, well mine is spiral bound but there are a few different ones – there is a finished one from last year... you can see it is all done and I've written the*

*reflection, it's quite messy because it is more for me than anyone else. (TY)*

The deputy principal confirmed that as a team leader they monitor the practices of their team members:

*So amongst my team, I meet with them all at least once a term, they ask if they think they need a meeting more than that, and I do some of the observations for them if that is a way that they've decided to approach their inquiry, and we talk about our goals as a cluster as well, so what we have worked on and what we are working on as a group, and yeah, I do meet with them regularly. (TLY)*

The classroom teacher also confirmed that the Principal does play a role in the appraisal process along with other staff operating as a community contributing to this teacher's personal learning, they commented:

*As a whole school we also have our attestation, which the principal does Term 1 & 3, but that is more like the basic paper work, and making sure that we are meeting all the minimum requirements and then my tutor teacher does the observations and then we meet every fortnight now. Just keeping track of my reflections and just lots of professional discussions – I can go to anyone in the school if I have a question or if I want to observe someone and I keep track of all my sort of informal meetings and discussions that we have as well, so I've got lots of evidence. (TY)*

At present the classroom teacher finds that the systems developed to help them inquire into their practice work well and would not modify them, they also critique this position and stated:

*I haven't really been exposed to any other systems, so it is kind of all that I have experienced so it is kind of difficult to want to change something that you haven't seen. But, this works really well for the kids and for me. (TY)*

Whereas the deputy principal believed the development of the professional inquiry process would involve a deeper level of inquiry and added:

*I think the next step will probably be to maybe develop it more as a questioning process. So maybe looking at the teacher's goals as questions rather than as "my goal*

*is to...". So to have a slightly more inquiry base to it would be, you know, more like "how does my teacher language impact on student achievement?" or that kind of step. (TLY)*

Throughout the interview process with all three members of School Y the nature of working collaboratively was evident; this was particularly represented by the deputy principal when they commented:

*I guess because we have got that team culture that people are quite open in sharing about... (TLY)*

*I guess it is really fostering that learning community and for the staff to see themselves as learners too, you know we definitely have been working really hard on building up the idea of a learning community, not just on paper but in practice. (TLY)*

*I guess if you came to a staff meeting you wouldn't see a person up the front lecturing about some new incentive, you would actually see staff in small groups having conversations about really small ideas or questions, so we don't actually need that huge amount of input – we tend to build it up a bit more slowly and do it collaboratively. (TLY)*

Finally, the deputy principal confirmed that the culture amongst the staff that the principal discussed is a collaborative culture and in part can be attributed to the influence of the outside facilitator on the leadership team. The deputy principal discussed this deliberate process and influence:

*I guess it all comes back to how we have managed to implement the stuff that we have; it all comes back to the work of the outside facilitator and his impact into the school. Like really focussing on our teaching practice and making us aware that the impact that we have and how things could be different, because unless you see a way that things could be different, you think what you are doing is ok – every time he comes, even if I have seen that lesson before, having had him for many years now I still go... oh, aw... you know you still get that uncomfortable maybe there is a different way that I can be doing it, or thinking about it, and I guess that having that outside influence has just made such a huge difference. (TLY)*

### *School Y: Challenges*

Lastly, the challenge of time and keeping focussed on professional goals was an issue for both the principal and the deputy. They acknowledged the dynamic nature of schools and how busy staff can often be and to keep focussed on professional inquiry goals often will come after staff have put the needs of students first. The classroom teacher also cited that learning to be reflective was a new skill and they found this challenging when having to think deeply about the reasons why they might do certain things and communicate these ideas.

## **FINDINGS FROM SCHOOL Z**

### *School Z: Espoused systems and practices*

In School Z there is not a specific model in place for teaching as inquiry however collecting information from the three interviews professional inquiry occurs and is regarded more as a way of being amongst the staff and was thought to be evident in the way things are done at School Z. It is believed by the principal that the use of a model needs to fit the context in which an inquiry occurs. The principal explained:

*OK, we don't have a specific model because I believe it is situational. So, a lot of times if you go to do an investigation or some sort of inquiry process, you actually have to make the process fit the purpose, so it might be short, it might be long, it might be detailed, it might be surface, you know, you might be looking for hard data, or soft data, so there is no, we don't have a particular model, but certainly that inquiry cycle that is represented in the curriculum, the cycle is the same no matter what you do. You know, define your problem, define your information, analyse your information, what does that tell you and work out some sort of action plan based on that, and then go back as you have the action plan and refer to your data. So, we don't have one specific model, but certainly the elements in the curriculum one are very, very similar. (PZ)*

This context based inquiry is confirmed in the comments from the deputy principal who added:



*I don't think that we have a specific model, we do a lot of it, but it's different in that it depends what we are looking into I guess. From my point of view, because I deal a lot with the data, student data, so for me, my own model I guess is following that of looking at the data, looking at the results, discussing that with teachers, discussing it as a team and what impact that has on the classroom programme so that is not a specific model as such, no. You know I've seen some of the models, but I haven't followed them as such. (NTLZ)*

Whilst the leaders acknowledge there is no set policy for teaching as inquiry or effective pedagogy, the elements of effective pedagogy are outlined in the school's curriculum file, which is seen as the link between the NZC and classroom practice and contains information on pedagogy, assessment and specific procedures for each learning area. The principal described professional inquiry documentation in relation to the curriculum file:

*...the elements in that, even though they don't prescribe a model, an inquiry model as such, they assume an inquiry approach, whether it's children's learning or teacher's learning or management learning – it assumes that you don't make decisions cold, that you actually look for evidence, whether it's just in formative assessment that the teacher's practice... so I think the best way to answer that is, that there is an inquiry approach that is implied in all of our school documentation rather than being here is the form to use, we do however have a curriculum review form that we give out when people are doing a curriculum review, and that does sort of state the process, but it very much situational. (PZ)*

The leaders of the school discussed that the terms 'using evidence or 'best practice' or 'review' are terms that would be used more widely with staff to reflect teaching as inquiry. The principal discussed that formative assessment practices exemplify effective pedagogy at School Z and it is those same practices that teachers need to process and employ when using evidence. The deputy principal agreed and commented that the term inquiry is used more to describe the inquiry teaching process that is in place for student learning and classroom practice than for a professional inquiry.

Further to effective pedagogy outlined in the curriculum file with a large component being AfL practices from the school's involvement in an earlier

contract, other systems which impact on professional inquiry are the target setting that occurs at senior management level for the school's annual plan, the appraisal process and the principal's own observational review of each teacher yearly. The deputy principal analyses the school wide achievement data and presents this aggregated information to the senior management team and subsequently to the Board of Trustees. The achievement data from each team is discussed with the team leaders, who in turn take it back to their weekly team meetings and discuss the implications for teaching practice that will be needed in order to address the needs identified in the achievement data to raise outcomes. This then involves promoting productive learning conversations with the senior leaders and team leaders.

The principal and senior leadership team meet with team leaders for a professional development training meeting twice per term. During these meetings the team leaders are up-skilled in how to have effective conversations. The teaching staff outside the management team have not been trained specifically in productive conversations, however do participate in these types of conversations with their team leaders and higher management.

The principal thought that it was interesting that the RTC contained elements of professional inquiry and commented that the leadership team may have to be more deliberate in communicating this with staff. The deputy confirmed that if they approached staff regarding the professional inquiry nature of the RTC, then hopefully they would then make a closer connection that engaging with professional inquiry fulfils a component of the RTC. The teacher leader interviewed also mentioned they were not aware of the connection, but was pleased that the practices of inquiry they were engaging in already complied.

The principal believed that an effective leader needed to display a passion for the learning process and for self-improvement in order to ensure that teaching as inquiry occurred in their organisation. They commented:

*I think if those are across the school – that positivity, the interest in learning, and the quest for improvement, then I think your inquiry process is going to be there in*

*various forms isn't it, well it's a good setting for it to happen. (PZ)*

The deputy acknowledged that a leader needed to know the staff well and added:

*...they need to know how best to tap into teachers to get them to inquire into their own practice and just as I said, dealing with different people in different ways because some people will embrace anything that you suggest whereas other teachers have their way of doing it and they've got to be approached quite differently from others...so it really is knowing your staff and I think too a willingness to do it yourself as a school leader and being prepared to change and look at your own practice and say this is working this isn't working what do I need to do. (NTLZ)*

#### *School Z: Practices in action*

One classroom teacher (TLZ) was interviewed (who was also a team leader) to confirm what practices were in place for teaching as inquiry at School Z. TLZ confirmed that there was no specific model for professional inquiry and that it is a professional expectation to be an inquiring practitioner at School Z; this sentiment is reflected when they contributed:

*I wouldn't say that we as a school have developed any model or that we even have a model per say, but it is underlying everything that we do in the school. It is very, very evident and very, very there. There is no name we don't say this is the model we use or anything like that, but every one of us uses assessment, uses children's needs and takes it from there on, so it underpins everything that we do, so not necessarily following a model, but yeah, it definitely underpins everything that we do. (TLZ)*

The classroom teacher discussed that a term she would use to describe teaching as inquiry would be 'best evidence practice' and that effective pedagogy at School Z is recognised as those practices that are promoted from involvement in the AfL contract and reinforced through the work of Michael Absolum's book (2006). She added:

*...if you walked into any classroom, you would see that the learning is not just out of thin air it was based on inquiry, Teaching as an Inquiry, so definitely it underpins everything that we do. (TLZ)*

The classroom teacher confirmed that the appraisal process and observational visit from the principal are ways that further enhance the teaching as inquiry process at School Z. On reflecting whether the school based systems needed to be modified in any way the classroom teacher didn't believe so, and commented:

*I mean as I said, it is underpinning in this particular school it is definitely underpinning everything that we do in our classrooms. Except for giving it a name like "this is the model we use", I don't think anything else needs to be changed because we are doing everything we are supposed to be doing, to help ourselves to become better teachers. (TLZ)*

Lastly, the classroom teacher found that undertaking professional inquiry was something that they always did (a way of being) and therefore posed no challenge for them personally, however they did find that the attitude of other members of their team toward professional inquiry was challenging for them as a team leader.

### *School Z: Challenges*

Lastly, the principal acknowledged that staff members had different levels of understanding about professional inquiry and it was a challenge to change the attitude of some staff members to have that hunger for self-improvement, they commented:

*It's just that culture of being self-critical and seeking improvement, once you've got that as an absolutely urgent need, then yes, they will be looking at themselves and thinking how do I change? (PZ)*

The deputy recognised that feedback to staff on their performance was challenging, as staff can take constructive feedback as a criticism and not as an opportunity for personal growth.

## Summary of Challenges across the Case Sites

To summarise the challenges that were presented in the findings across all research locations I was able to group the findings into the following themes that are represented in Table 5.3 and then discussed.

*Table 5.3: Challenges implementing inquiry based practices*

| <b>Challenges</b>         | <b>Total Responses</b> | <b>School</b> |          |          |
|---------------------------|------------------------|---------------|----------|----------|
|                           |                        | <b>X</b>      | <b>Y</b> | <b>Z</b> |
| Managing Change           | <b>8</b>               | 3             | 2        | 3        |
| Time                      | <b>7</b>               | 3             | 2        | 2        |
| Staff Attitude            | <b>6</b>               | 2             | 1        | 3        |
| Limited Teacher Knowledge | <b>5</b>               | 2             | 2        | 1        |
| Other                     | <b>3</b>               | 3             |          |          |

### *Managing Change*

Nine out of the ten participants had some form of leadership role; three were principals, two were non-teaching deputy principals and four were teaching leaders therefore managing change was a theme recurring for most of my interview respondents. In classifying comments from the participants into the theme of managing change I grouped comments related to the process of implementation, for example:

*...it is how you sell it to teachers and get them to be involved in it, rather than imposing it on top of them any change or even presenting data can be quite difficult too.  
(NTLZ)*

The leaders in School Y both felt that staff needed to be constantly reminded of expectations for inquiry and reflected:

*A challenge is that we are so busy, is to actually keep it in their heads...So, it's keeping that whole inquiry model in front of them all the time, but it's also about, and in that process really practicing the language, moving it*

*from sort of conscious to sort of sub-conscious area.  
(PY)*

*...if it is not in front of you all the time then you can get distracted from it, so it's keeping it at the forefront of your mind... revisiting it and keeping it fresh in people's minds. (TLY)*

A further challenge I classified under managing change was the notion of inducting new staff members into the processes and culture of the school, represented in this statement:

*I guess as new staff come in, it is kind of inducting them into the processes as well and because we are a growing school that happens quite regularly, so that's having key people there to pick them up and induct them into how it all works. (TLY)*

### *Time*

The next biggest challenge was time with 70% of the participants finding this a challenge. While many of the comments reflected in the need to have time to reflect and plan inquiry represented in comments such as:

*Time is always a big challenge for teachers at any element I guess. (TLY)*

*Time – and making those changes does take time.  
(TLX2)*

The theme of the process of change taking time was also cited, particularly by leaders:

*The problem was and particularly in a big school, is that it takes a lot longer to move that culture. (PX)*

*It was something that we've really had to work on really slowly. (NTLZ)*

*There were lots of instances where I had to prove that it worked, to get the person alongside me, I had to show value in it and show my passion and say why I thought it was valuable and everyone else doing it in the school as well drove it, but I didn't just want it to be, well everyone else is doing it, so you have to, because I knew that would be short term or only done when someone was watching and not as a practice in the classroom, so they*

*had to be given lots and lots of opportunity to see the value of it and I had to open up my classroom more so than ever. (TLZ)*

### *Staff Attitude*

The attitude of staff was a concern and challenge for 60% of the participants. Whether it was staff resisting change, complacency, staff not valuing the importance of teaching as inquiry, the lack of perception that teachers needed to change to raise student outcomes, that staff took feedback as a criticism or that staff members needed to be accountable I classified it under the theme of staff attitude. The following comments are representative of the concerns:

*As a team leader, I find it quite difficult that I don't think that some of my team members are as effective as they should be and that they are quite happy just to leave things the way they are because everything's OK, when in fact I can see by looking at the data that it is not, and I can see by when I go in and do observations, that things are not the way they should be, but people have got this view of what is happening in their classroom that I'm not actually seeing, it's not being backed up by the evidence. (TLX1)*

*In my team I have had a few occasions when it has become challenging in the sense that a teacher didn't see the value in it and it was hard to overcome those barriers, we have now overcome those and now the teacher is more accountable. (TLZ)*

### *Limited Teacher Knowledge*

For 50% of the participants there was a challenge that teachers didn't have the knowledge to make changes to their practice. One teacher was very reflective of their own practice and stated:

*...sometimes when you are going through this process depending on if students aren't moving it can be an issue of whether you understand, so your understanding, your own pedagogical content knowledge, like how do you know how to move the gifted children on or how do you know where they should be, or how to support the children that are underachieving, so that could also come because if you*

*don't know what you are doing then how can you reflect on where to next. (TLX2)*

One leader identified that the limited teacher knowledge could be not from not wanting to change but being embarrassed to ask for help:

*I've noticed in my many years of being a leader as well is that it is protecting teachers' egos as well is really important because they do take it so personally and they can resist change, not because they don't want it, because they are embarrassed that they didn't know what they should be doing, and so I think for us as leaders it is that dealing with how to present it to staff and to implement change. (NTLZ)*

Principal Z noted specifically:

*...that different staff members have different levels of understanding of the inquiry process... it's just that culture of being self-critical and seeking improvement, once you've got that as an absolutely urgent need, then yes, they will be looking at themselves and thinking how do I change. (PZ)*

While Principal X was more analytical and cited a few reasons why staff may have limited knowledge:

*...it wasn't really promoted as a main part of the curriculum at the time, and yet you can't do anything unless this is a key component – the principles, values, key competencies and vision were promoted but teaching as inquiry wasn't – and it's only because people like yourself have stepped up and said this is actually the cornerstone of this curriculum, that it then came to the fore...*

*...you are dealing with teachers that are either NZ trained, overseas, PRTs or who don't have that depth of understanding of what that [inquiry] means...*

*...getting teachers coming out having no understanding of Teaching as Inquiry, they hadn't been taught or it hadn't been touched on, or it was maybe 2 hours out of a 50 hour paper... (PX)*

The classroom teacher of School Y confirmed the suspicions of Principal X; as a recent graduate they commented:



*I've been learning to become a more of a reflective practitioner, because at University they give you all the answers and that is what I was used to, so I've had to force myself to become more reflective and think about things myself, so it hasn't come naturally yet. (TY)*

### *Other Challenges*

Three responses were grouped together to form the 'other' category, as while these were challenges for individuals they were not representative of the whole group of participants, yet I felt they should not be excluded. In this category one teaching leader found it challenging finding the appropriate resources to support changing practice and teaching, a second teaching leader found that they were too critical of their own practice and that being too reflective and the desire to make changes to all her reflections was too cumbersome, they comment:

*Personally I find that sometimes I am too reflective, and I am constantly changing things, which becomes a bit hectic and quite exhausting and I'm kind of learning (after nearly 20 years of teaching), that actually sometimes it's ok to just leave things the way they are. So, that has been a big thing for me since I took on the team leader role because I now have other pulls on my time, I can't actually keep changing programmes every week, plus that is not very good for the kids. But, that's what I was constantly doing, constantly going this is not working, you know I need to be doing this, and I've got to change that, whereas now I'm kind of thinking, it's actually doing ok, I'm doing ok at the moment, that can stay there the way it is and focus on some other things for a while. So, that's been a personal one for me is that holding back that reflection slightly, and not wanting to change the whole world. (TLX1)*

Lastly, Principal X discussed the confusion evident in the term teaching as inquiry and the practice of inquiry teaching:

*ICTPD is around inquiry learning which is very different but you still have to be Teaching as Inquiry to do inquiry learning – so to start with it was getting the teachers to understand these two different terminologies and not to confuse it, but also to bring in the AfL for the strategies – so that teachers actually understood the whole process with that constant evaluation of their inquiry. (PX)*

## **Conclusion**

The findings from the semi-structured interviews provide a rich narrative of what occurs in each research location related to teaching as inquiry and building and sustaining a culture of inquiry within each context and form the basis of the discussion to follow in chapter six. What is evident by the findings from the semi-structured interviews is that while there are some similarities across sites, each site is unique in its systems and practices based on the culture and climate within the school. The findings also revealed that leadership activity was shared within each context to reinforce the shared understandings and established practices of the leadership team to the wider teaching population within each context.

The next chapter will bring together the findings from chapters four and five to explore a greater perspective of teaching as inquiry around the themes that have emerged from the findings by discussing them in greater detail and with reference to the literature presented in chapter two.

## **CHAPTER SIX**

### **DISCUSSION OF FINDINGS**

#### **INTRODUCTION**

This chapter synthesises the findings from chapters four and five in relation to the literature introduced in chapter two. The overall aim of this research was to examine the understandings of teaching as inquiry and how this aligned with the espoused systems and practices in a primary school, and subsequently what challenged school leaders and teachers faced when implementing inquiry based practices. With an emphasis from a leadership perspective the discussion is structured around the three concepts from the research questions (understandings, systems and organisational learning) with an integration of the three components that frame the concept of Teaching as Inquiry introduced in chapter two where teaching as inquiry is an effective pedagogy, can enable professional learning and is a vehicle for organisational learning.

The New Zealand educational context was discussed earlier which revealed that all New Zealand schools are required and recommended to draw on the same national documents to govern and manage their organisations. These documents include:

- The National Administration Guidelines
- The New Zealand Curriculum
- The Kiwi Leadership for Principals
- The Best Evidence Synthesis Series
- Education Review Office reports
- The New Zealand Teachers Council documents
- Ministry of Education Research Reports and Updates

These documents are in place to ensure schools know what to do, yet each school being self-governing and self-managing has the authority to personalise practices to the identified learning needs and strengths of its school community. The Ministry of Education have accountability measures in place through Boards of Trustees submitting Charters, and Strategic and Annual Plans in accordance with the NAGs. Further accountability and compliance is undertaken by the ERO during routine visits to the school at one to five yearly intervals with findings being made public. Although similar practices are likely to occur, each school context was unique in their interpretation of the guiding documents; there was no one size fits all approach because schools are dynamic places and teaching is a complex activity. This was reflected in the research findings with each case study school providing three personalised approaches to implementing teaching as inquiry in their organisation.

## **TEACHING AS INQUIRY: CONTEXT AND UNDERSTANDINGS**

There is evidence from the findings to suggest that there is confusion in the understanding of the terminology teaching as inquiry and inquiry teaching as documented in some of the literature (Ministry, 2011; Schagen, 2011; Sinnema, 2010, 2011). The base-line questionnaire in this study revealed that there was some confusion with 6/23 returned questionnaires being excluded from this study because there was clear evidence in the language used that the respondent was referring to inquiry teaching, or that there was not enough information supplied to ascertain their understanding. One interview participant wanted to make sure I was discussing teacher inquiry practice not inquiry teaching before starting the interview process, furthermore, one principal acknowledged that they had to work with staff to reveal the difference between the two terms. What is interesting to note is that because of the confusion ERO reports in 2009 and 2010 that reported findings on school readiness to implement the revised NZC began to no longer refer to teaching as inquiry and predominantly used the term “using an evidence-based approach to teaching” (Schagen, 2011, p.19) this may present mixed messages to the teaching profession on what teaching as

inquiry is and contribute to the confusion. I use the terms professional inquiry and teaching as inquiry interchangeably because I wanted to place emphasis on learning for teacher and leadership actions that need to be internalised by the educator to focus that change comes from within their actions for improving student outcomes rather than confusing it with inquiry teaching (where the emphasis is a cycle of learning for students to use), and to raise the profile of teaching as a professional activity amongst teachers themselves.

The research findings reveal that teaching as inquiry is understood largely at a procedural understanding in the study schools; where teaching as inquiry is a cycle of learning, a model for teachers and school leaders to employ at a process level. This was evident in the five themes that emerged out of the interview data where teaching as inquiry is understood as: 1) teacher centred through changes in teaching practice; 2) a cyclic process; 3) a reflective practice; 4) based on using evidence; and 5) having improved outcomes for teachers and students. While it was espoused that more conceptual understandings of teaching as inquiry occurred in each organisation, because 9/10 participants had leadership roles, evidence obtained was limited. This made it difficult to establish whether classroom teachers had the espoused view of inquiry as a way of being, or to confirm that the espoused systems were ubiquitous in each location. I did not have the time to pursue more interviews from teachers that were not designated a leadership role; their voice is missing from the findings and it may have provided a different perspective. However, taken that 4/10 teacher leaders were classroom based, the findings confirm that these teachers did have a deeper conceptual understanding of teaching as inquiry and were role models in implementing the school based practices for professional inquiry in their organisations. This is supported in the literature when the ERO (2011) reported that where schools had established systems where there was an expectation that teaching as inquiry would occur that “some teachers had adopted an inquiry disposition – they habitually viewed teaching and learning through an inquiry lens” (p. 3). The school principals and non-teaching leaders interviewed also espoused to be inquirers into their practice which does not mean they necessarily do it (Argyris, 1977; Robinson & Lai, 2006; Schein, 2000);

however within the findings I have no reason to discount that this espoused view doesn't occur. Earl and Timperley (2008) caution that "operating with an inquiry habit of mind is not a typical approach for many people" (p.4), therefore educators need to be mindful how they implement teaching as inquiry into their organisation.

The findings in this research identify that because teaching as inquiry is understood more at a procedural level, it is viewed as a systems component to be implemented. Reid (2004) claims that "inquiry is not a 'thing', such as a model or series of steps or procedures" (p.6), and educators will not profess that they 'do' inquiry because it separates their professional activity and their professional way of being. Yet on the other hand, Reid (2004) also states that "no education system or single institution should simply exhort people to engage in inquiry without an acknowledgement that inquiry skills need to be built thoughtfully and systematically" (p. 7). The inclusion of the teaching as inquiry model in the NZC and BES documentation therefore warrants that school leaders do put systems in place to ensure that professional inquiry is a deliberate act of leadership and teacher activity, and because it is presented as a model this reinforces a procedural understanding of inquiry. To get to a conceptual understanding, educators need to value inquiry as a professional responsibility and view inquiry as a way of behaviour. Dana and Yendol-Silva (2003) discuss "when teaching and inquiry become synonymous, you have cultivated an inquiry stance towards teaching" (p.9). This inquiry stance demonstrates that teachers have internalised and adopted an inquiry approach to their professional activity and that they will continue to be lifelong learners, contributing to their own knowledge building, their learning community and ultimately improve outcomes for students. The findings in this study suggest that the three school principals are establishing what they think are the conditions for a culture of inquiry to occur in each of their organisations and that the espoused systems described by school leaders are in actual use, so that teachers understand professional inquiry and that inquiry skills can be 'built thoughtfully and systematically' (Reid, 2004). Leaders are aware that professional inquiry is occurring in their organisation because they have all established shared leadership practices that reinforce a culture of

inquiry though more data would need to be collected from teachers through classroom observation to substantiate this claim.

My research suggests that in two of the schools (X and Y) staff did profess that they undertook professional inquiry, whilst in the third school (Z) professional inquiry was considered more in terms of the way we do things around here naturally, with 'naturally' meaning that it was espoused that teachers engaged in inquiry as stance, from a perspective that all (or most) teachers already possessed an inquiry outlook to their professional activity. This may be because in School X and Y professional inquiry followed established illustrative models developed by each school which were continually promoted and discussed with staff and where clear systems for professional inquiry were expected to be followed; whereas in School Z there was no set model of teaching as inquiry as it would be dependent on the particular context in which one was inquiring and the notion of being an inquirer was espoused to be happening across the school. While there was no documentary evidence shared with me to support the espoused practices in School Z, I cannot dismiss that professional inquiry does not exist; the three interviewed participants from School Z all had a conceptual understanding of teaching as inquiry that espoused that the values underpinning professional inquiry were shared across the school, as each other's views, ideas and practices were aligned.

The findings revealed that the level of documentation presented towards teaching as inquiry was different in each school. School Y had the most integrated paper trail of the three schools; professional inquiry was present in the performance management process and in the school's curriculum delivery plan. Although School X had established practices and followed an illustrative model of teaching as inquiry, it was identified by the school leaders that more formalised written processes in a curriculum plan or policy would be an area for further possible development. While in School Z there were no formal written accounts for the implementation of teaching as inquiry to occur, it was communicated that it was implied in the curriculum delivery plan for the school. The three research locations presented different levels of documentation which shows that the contextual conditions established by

leaders did influence the extent to which teaching as inquiry was understood and practiced by teachers. Schools that have more integrated documentation could quickly provide evidence that the practice of inquiry was evident in their organisation because the documentation supplied aligned with the espoused views of current practices in the classroom, however this view was not evident in the teaching as inquiry literature that was reviewed.

The purpose of the base-line questionnaire was to understand the prevalence that the practice of teaching as inquiry occurs in schools from a school leader's perspective in a wider context to the three research schools. The findings did reveal that there is a huge range of terminology and activity that is known for teaching as inquiry in all of the returned questionnaires and therefore all responses espoused that teaching as inquiry was a practice that occurred in their organisation. The types of professional inquiry activity indicated by the questionnaire findings relate to surface level procedural understandings of inquiry (e.g. evidence informed data, formative practices, review, meetings to discuss achievement results) without evidence that the action that is needed in teaching as inquiry to act on evidence has occurred. Therefore, from the base-line questionnaire findings I am unable to ascertain the depth of understanding about teaching as inquiry as a cycle of learning or as a professional way of being, I can only confirm that the practices that are described show that professional inquiry has been implemented largely within existing systems and practices across all schools that participated in the questionnaire and that these were the perceptions of the school leader respondents only.

## **TEACHING AS INQUIRY: SYSTEMS IN ACTION**

Since leadership activity is context dependent (Ministry, 2008; Robinson et al., 2009) I do not mean to assert that any one system or organisation has the panacea for successfully ensuring that teaching as inquiry occurs. The extent to which leaders create systems within their school can be thought of in terms of 'loosely coupled systems' a concept which Weick (1976) phrased to describe the relationships between established systems and elements within an organisation. School X and School Y both had ascertained their own



illustrative model for teachers to inquire into their practice with more formalised processes than School Z; therefore, it could be said that School X and Y were operating in a more 'tightly' coupled espoused system than School Z. The alignment of processes within School X and School Y shows a more integrated approach to ensuring that several elements are tied together 'coupled' to ensure that the practice of teaching as inquiry was deliberate and occurred in these organisations.

The three school leaders identified that teaching as inquiry had been from their perspective incorporated into existing systems that operate within each organisation. In School Y the use of an inquiry model which was also used with students created a shared understanding and language across the school for all learners which reinforced the espoused shared belief and value that the whole school was a learning community. Although this would need to be confirmed from observations or interviews with students, the perspective was confirmed when interviewing TY who was fairly new to the school and expressed this view strongly. For teachers in School Y, the goal setting and appraisal system (Professional Growth Matrix & Action Plan) was set up to try and ensure that teachers set goals that included inquiring into teacher practice on student outcomes. It was commented by TLY and TY that teachers shared their goals with their students to gain feedback on their progress. The TY revealed that they were not always given answers or solutions to their issues and that they were often questioned further to discover their own understandings, in order to be encouraged as an inquiring practitioner. According to Cochrane-Smith and Lytle (2008) this kind of practice within School Y helps to develop an inquiry stance, where the practices within School Y supported a focus on professional learning where inquiry holds the potential for teachers to grow and sustain their own professional development as teachers could recognise that questioning is sometimes more important and meaningful than knowing the answer in order to develop an inquiry stance. In School X the integration of AfL practices were discussed as a way of ensuring that teaching as inquiry occurred. A comprehensive process of observation, shadowing and coaching was discussed by senior leaders and teacher leaders within School X that involved

all classroom teachers learning in small groups and how this impacts on the whole organisation to learn too. This observation and feedback process integrated with the school's understanding of effective pedagogy and was related to the School X's appraisal processes. In School Z the integration of systems wasn't as explicit or overt for teachers, however through management observation and discussion with staff members teachers were encouraged to reflect and justify the programmes and teacher actions that made an impact on student learning. In School Z this leads to a more informal approach where it is assumed by school leaders that staff are bound by their professional accountability to ensure that professional inquiry occurs rather than through systematic compliance.

Appraisal processes were mentioned in all three schools from the leaders that helped to ensure that teaching as inquiry occurred, and had been observed predominately through the dialogue between appraisee and appraiser by school leaders. In School X the principal and several teacher leaders mentioned specifically that there were plans to review the appraisal system to incorporate professional inquiry more as being an "appraisal for learning" (Sinnema, 2005). The principal and leaders spoke that this would create more ownership of the professional inquiry process and collaboration amongst team members. Professional inquiry could be seen as a tool for strengthening the professional capacity and agency of teachers with inquiry now being discreetly embedded into the Registered Teacher Criteria (RTC) and with the use of school leaders and external facilitators using inquiry based approaches to enact change in organisations. The literature reveals that this is largely because the inquiry approach has been the predominate initiative tool for change implementation in several professional development learning opportunities for schools in the last decade; including AfL which two of the three schools identified as participating in (Absolum, 2006; Ministry, 2008c; Robinson & Lai, 2006).

There was limited evidence collected across all three schools that staff fully understood that professional inquiry was embedded in the new RTC. The Principals at School X and School Y said the new RTC was shared with staff; however the knowledge of the criteria amongst staff members would vary as it

was a new process for teacher registration and attestation for them. I was able to confirm in School X that one of the staff members interviewed did know this and the other teaching staff member interviewed did not know this; while in School Y both classroom based teachers were aware that the professional inquiry they practiced complied with the RTC. In School Y the teaching leader also was a tutor teacher (a teacher with designated responsibility to mentor new teachers to the profession) and therefore had a good understanding of the new RTC; while in School Z this was new information for them to process.

The three principals identified that discussion occurred frequently at senior leadership meetings that focussed on student achievement evidence and solutions for raising student achievement through teacher actions; it was identified that these discussions were also an extension of the Strategic Planning process for annual student target setting in all three locations. Evidence informed discussions were also confirmed by all of the teaching leaders across all three schools that discussed that at team meetings conversations were held around the student data from their teams to problem solve ways to improve achievement. A discussion could include what was working well for particular groups of students and the teacher actions that may have promoted this growth, and where teachers were struggling with implementing strategies and how collectively they might be able to suggest ways of solving such issues. This was also reinforced in the base-line questionnaire which supported that planned discussion was a deliberate act of leadership that enabled teaching as inquiry to occur. The findings here are also highlighted in the literature that validate inquiry can be done individually but it is often more powerful when collaborating with others. Through conversations there can be shared ownership for raising student outcomes that can expose our current assumptions, and check our shared understandings that such inquiry practices help build sustainable improvements in teaching and learning (Cochran-Smith & Lytle, 2008; MacBeath & Dempster, 2009; Earl & Timperley, 2008; Harris, 2002; Reid, 2004; Robinson & Lai, 2006).

## **TEACHING AS INQUIRY: CHALLENGES FOR BUILDING CULTURE**

Dana and Yendol-Silva (2003) assert that there has been a transition for inquiry to be used as a mechanism for professional development to promote schools as learning organisations, and therefore a learning culture must prevail, support, celebrate and challenge teachers to engage in a professional inquiry process. The three principals interviewed had different views of what they believed an effective school leader needed to ensure that teaching as inquiry occurred in their organisation. The principal of School X believed that staff needed to have the right attitude about the teaching as inquiry process as a way of professional growth within themselves as a learner and a passion for improvement. The principal of School Y believed that staff needed to have a deep understanding of inquiry that it works and is important for the whole learning community. While the principal of School Z believed that staff needed to be passionate and have a hunger for self-improvement in order for teaching as inquiry to occur. All three principals mentioned that teaching as inquiry was a way of moving forward from reviewing their current practices and assumptions in order to have new shared understandings to address the status quo and collectively discover ways to improve. Professional inquiry can then move beyond the individual teacher to the collective professional community, where the whole school can be engaged in systematic inquiry as a normal part of its practice and as a means of contributing to school improvement, where the school is seen as a learning organisation (Harris, 2002; Senge et al., 2000; Reid, 2004; Timperley et al., 2007)

The senior leaders in each school had different views of what skills a leader needed in order to ensure teaching as inquiry occurred. The NTLX discussed the importance of valuing time and learning conversations with staff. The TLY discussed having a strong vision that was communicated where staff were encouraged to be learners too and open to mistake learning. While the NTLZ discussed that it was important to really know the staff and personalising learning for them so it wasn't a one size fits all approach. Additionally it was important to them that leaders were able to role model that they were learners too and were prepared to change. Findings from the research locations and literature show that the context in which teachers work plays a huge role in

how teachers understand and practice teaching as inquiry and this is directly related to the conditions established by leaders (Day, 2011; MacBeath & Dempster, 2009; Reid & O'Donoghue, 2004; Robinson et al., 2009).

The findings reveal that implementing inquiry based approaches was a practice in the three research schools to enable change in relation to sustaining and improving teacher practice for effective pedagogy and improved student outcomes; however managing change was also exposed as a key challenge for principals, leaders and teaching leaders in each location. Other challenges identified across the three case schools were time, the attitude of staff towards valuing inquiry and its outcomes, and limited teacher knowledge in teaching as inquiry. These challenges were confirmed from the findings in the base-line questionnaire which added the following challenges from a leadership perspective: sustaining changes in practice, time, professional development for staff to understand inquiry and refine professional inquiry skills and teacher attitude towards being responsible for student outcomes and accountability. These challenges are present in several sources of literature (Ball, 2004; Codd 2005; Fitzgerald, 2008; Robinson et al., 2009; Sinnema, 2005; Timperley et al., 2008) which identify the complexity of change, leadership and inquiry in a New Zealand context. The findings however do suggest the importance of dialogue as part of the solution; along with ensuring that school leaders promote and sustain a culture of professional inquiry in their organisation.

Dialogue is identified by the participants in both the interviews and base-line questionnaire as a key to understanding how within each cultural context learning conversations can support the renewal of understandings through testing assumptions and developing shared understandings that help to build trusting relationships with other professionals and promotes shared accountability of the evidence within each context. MacBeath and Dempster (2009) discuss however such dialogue cannot be trivial it must be a "disciplined dialogue" that focuses conversations on teaching and learning, where there is understanding, trust and purpose amongst professionals. Earl and Timperley (2008) also identify that leadership activity is fundamental in developing school wide norms of trust and respect essential to conversations

for learning. The importance of a learning dialogue was highlighted in the research findings.

In School X and School Y it was revealed that all staff had been exposed to professional development in how to have an effective learning conversation. In School X, this was based on involvement in the AfL professional development following Michael Absolum's use of Argyris' Ladder of Inference (Argyris, 1990) and following a Model 2 theory of learning to expose assumptions and practices and to reveal new shared understandings and values. While in School Y learning conversations following a model introduced by the outside facilitator using an inquiry approach promoted by Dalton (2010a, 2010b, 2011) was understood, practiced and reinforced regularly by all staff and in particular modelled by senior leaders. The foundation of this inquiry approach to learning talk is to enact double loop learning through a process that can involve up to nine capabilities: listen, inquire, advocate, explore perspectives, test assumptions, build common ground, work for resolution, decide and plan for action and meta-reflect (Dalton, 2011). While in School Z it was established that the senior leaders and team leaders had been exposed primarily to training in learning conversations, and that while classroom teachers participated in such conversations they wouldn't necessarily have the theory behind effective conversations to the depth of understanding that the management team held. The interview findings did not reveal the extent to which such disciplined dialogue was being engaged in effectively, the findings merely reveal that dialogue is a tool that is seen as a key to reveal teacher understandings, values and attitudes towards current assumptions and practice. In School X and School Y both principals did discuss that at leadership team meetings leaders practiced having effective conversations and role modelled scenarios to empower teacher leaders to have such conversations; this could confirm that engaging in open to learning conversations is a challenge because it takes people out of their comfort zone (Cardno, 2007; Earl & Timperley, 2008; MacBeath & Dempster, 2009; Robinson & Lai, 2006; Senge et al., 2000).

The power of focussed dialogue to reveal values and assumptions takes time to embed in a learning culture (Dalton, 2011; MacBeath & Dempster, 2009).

Leaders need to have a deliberate plan on how to up-skill staff in undertaking open to learning conversations and research identifies that the types of conversations that are needed in organisational learning is challenging, as 'disciplined dialogue' requires skills that allow participants set aside their basic assumptions for a short while and be open minded to new ways of viewing issues before making judgements and deciding upon changing their values base (Argyris, 1977; Cardno, 2007). Dialogue is linked to building capacity amongst staff; capacity for individual agency for learning and school capacity to sustain continuous improvements to manage change (Hopkins & Jackson, 2003; Senge et al., 2000).

The findings from all three research locations showed that all three principals indicated that they shared leadership with non-teaching and teaching leaders as a way of reinforcing systems and procedures to build a culture of inquiry in each organisation. Team leaders in all three locations meet weekly with the senior leaders of the school and reported back how their teams were working towards school goals. This according to Senge et al. (2000) and Harris (2008) reinforces the capacity building amongst the layers of leaders within an organisation for fostering conditions and helping to create the supporting structures to enable teaching as inquiry to occur. However school leaders do need to be mindful that with the increase in pressure for teachers to be accountable to the school goals of improving outcomes for students, that the capacity for teachers to also be innovative and spontaneous is also nurtured, so that they can act as autonomous professionals despite external forces that call for schools to operate with an increasingly managed and surveillance orientated professional mandate (Ball, 2004; Codd, 2005; Fitzgerald, 2008).

## **CONCLUSION**

The discussion in chapter six of the findings evident in this study reveals for leaders that building capacity in their organisation through conversations for learning and a focus on inquiry to support teaching and learning (individually and collectively) can help an organisation shift perspectives in professional inquiry from a cycle of compliance to the deeper level of inquiry as a way of professional being.

## **CHAPTER SEVEN**

### **CONCLUSION AND RECOMMENDATIONS**

#### **INTRODUCTION**

I came to this research study with the understanding that teaching as inquiry holds the potential for school leaders and teachers to understand their individual agency as a means for change and drive their own professional learning and development. I therefore wanted to understand the systems that leaders employed to ensure that teaching as inquiry occurs in school organisations. The main conclusion that my research identified was the extent to which teaching as inquiry is understood, implemented and practiced by teachers is determined by the specific context in which teacher's work. Deal and Peterson (1999) discuss the importance of the cultural context in which teachers work as "highly enduring, have a powerful impact on performance, and shape the ways people think, act, and feel" (p.4).

This final chapter presents the conclusions and recommendations of this research study as summarised from the previous chapter according to the following research questions:

1. How is the practice of teaching as inquiry understood in a primary school?
2. How do the espoused systems of promoting and sustaining teaching as inquiry align with teacher practice and external requirements?
3. What challenges do primary school leaders and teachers face implementing inquiry based practices?

This chapter will show how these research questions and the findings are interconnected by employing teaching as inquiry as a tool for organisational learning and presenting this concept in a diagrammatic format. The limitations



of the study are presented, and finally recommendations are suggested for ensuring that teaching as inquiry is understood and practiced by educators.

## **CONCLUSIONS**

### **How is the practice of teaching as inquiry understood in a primary school?**

This study has identified that teaching as inquiry is largely practised with a procedural understanding as a cycle for learning, following established systems developed within each school context. Two of the schools had developed their own illustrative model for professional inquiry and the baseline questionnaire findings also confirmed that respondents from 65% of schools indicated they had developed their own school model for professional inquiry. A conclusion can be drawn that a shift is required for educators to adopt a conceptual rather than a procedural understanding of teaching as inquiry. Shifting emphasis from teaching as inquiry as a procedural process to a conceptual one is important for enacting an inquiry stance towards an individual's knowledge building and capacity. Inquiry is recognised as a vehicle for solving local solutions to local problems (context based), grow schools as a site for knowledge building, develop individual and team agency and therefore can be used to harness capacity across the school as a learning organisation.

Several authors (Cochrane-Smith & Lytle, 2009; Ministry, 2008c; Reid, 2004) discuss that inquiry can occur at two levels: firstly, as a cycle of learning, which I relate in terms of a procedural understanding that schools may implement systems in order for staff to engage in an inquiry process to reflect and take action on practice; and secondly, inquiry as a professional way of being, which I relate to in terms of a conceptual understanding, where educators have internalised what it means to be an effective educator and take an inquiry stance in the way that they view all their professional activity. With this dual understanding in mind an issue for NZ educators could be that teaching as inquiry in the NZC is presented as a cyclic model. Therefore the

teaching as inquiry model in the NZC may currently be viewed as a professional inquiry with a procedural understanding, and explain why many educators engage with professional inquiry as part of a systems approach. I would assert the intent of including the model in the NZC is to promote, engage and adopt professional inquiry for a conceptual understanding. The process of moving from a procedural to conceptual understanding takes time to embed the values and practices of professional inquiry not only in individual teachers, teams and schools, but for the education system as a whole.

A conceptual understanding of teaching as inquiry includes a mind-set of continuous growth and improvement, and an inquiry stance in the way that educators view their professional activity (Earl & Timperley, 2008). The research findings indicated that this is an espoused view held by several of the teaching leaders across all three research locations. These teaching leaders saw themselves as role models for the rest of their teams, displaying behaviours that promoted inquiring into their practice and that of the teams that they lead. According to Day (2003) principals and school leaders must engage in reflective practices as “leading learners in the school community... and revisit and review their own commitments, qualities and skills if they are to encourage others to do so” (p. 36). Making these practices explicit, this study revealed that school leaders and teaching leaders employed professional dialogue as a primary tool. However, this study was unable to ascertain the extent to which dialogue was engaged in to reveal if current assumptions and values held had been changed from those participating in such conversations.

### **How do the espoused systems of promoting and sustaining teaching as inquiry align with teacher practice and external requirements?**

The revised NZC stipulates that schools develop plans that foster the principles, values and vision of the NZC; however it does not stipulate that professional inquiry is compulsory. Nevertheless given that inquiry processes are advocated as an effective pedagogy in the NZC, are embedded into the RTC, are presented in two BES, and the topic of a recent ERO National

Review it is likely that schools will employ teaching as inquiry because its central aim is to improve the outcomes for students by examining the teaching and learning relationship. The findings of this study show the extent to which this occurs is different in each context.

According to Sergiovanni (2001) where school leaders are able to create communities where professional dialogue is focussed on evidence and improving teaching and learning “they developed professional and intellectual capital by helping their schools become inquiring communities committed to rigorous and authentic learning” (p. 122). The study has identified a range of ways that teaching as inquiry was included into school systems. All participants that were interviewed identified that professional inquiry was a vehicle for improvement for either students or teachers, while school principals saw that inquiry also contributed to organisational improvements. Systems employed in this research were primarily in the early phases of being implemented and there was not enough evidence to suggest that the practices employed had yet been sustained in each context. This study also revealed that the established espoused practices held by the school leaders of the practices and systems for professional inquiry in their school, was in actual use. However, organisational learning theory tells us that what is espoused to happen and what actually does happen can often be different (Argyris, 1977; Schein, 2000). Further investigations including observations and wider interviews within each location over a sustained period of time would need to confirm whether teaching as inquiry processes were ubiquitous in each location over a sustained period of time.

School leaders are required to have performance management systems which include clearly established appraisal and attestation processes. While the findings of this study identified that that teaching as inquiry was included in appraisal processes the extent to which teacher goals were directly related to student outcomes, school targets or seen as a learning opportunity for staff members was not established. The three research locations did discuss that staff were appraised through observation and subsequent feedback and conversations, and there was evidence in the base-line questionnaire to

support this practice was wide spread across the participating schools. Not all leaders and teachers were aware that inquiry was now embedded into the new Registered Teachers Criteria and I would conclude that it is a teacher's professional responsibility to ensure that they are familiar with the RTC in order to maintain full registration.

The findings in this research indicated that planned dialogue was the most employed activity for enacting teaching as inquiry. Dialogue is the key activity in organisational learning where leaders can employ a variety of strategies to enact Model 2 (Argyris, 1977) double loop learning to reduce the gap between espoused theories and theories-in-use for individuals and teams to build knowledge for improvement and promote a culture of inquiry.

A conclusion can be drawn from the findings and in the literature, that even in the presence of dialogue for evidence informed learning conversations and through leaders efforts to develop and sustain a culture of inquiry amongst the staff does not mean that change will occur in the organisation. Leaders will need to also concentrate efforts on building the relationships and trust between individuals and teams which is vital where relationships are based on mutual respect and trust to ensure that change is possible. Relationships are central to the KLP model and certainly building the capacity of individuals to engage in conversations helps to enable such relationships (Earl & Timperley, 2008; Ministry, 2008a; Robinson et al., 2009). However, there was no evidence collected in this study that examined the quality of relationships that extended beyond staff members collaborating in teams to engage in evidence informed conversations, this would need to be investigated further to confirm this claim.

### **What challenges do primary school leaders and teachers face implementing inquiry based practices?**

Challenges for leadership can also be context specific. Research indicates that employing the same leadership behaviours has different meanings in different contexts and therefore leaders need to adapt their approaches to the

specific context in which they work (Day, 2003; Ministry, 2007; Robinson et al., 2008; Sergiovanni, 2001; Timperley et al., 2009). This study revealed eight global challenges from the base-line questionnaire which were also supported in each of the research locations: 1) sustaining change; 2) time; 3) support and professional development for staff to use evidence and inquiry skills; 4) understanding the model of teaching as inquiry; 5) teacher's being professional responsible and accountable; 6) collecting evidence that teaching as inquiry was occurring; 7) fostering a commitment to continuous improvement; and 8) resistance to change current practices. For leaders to overcome these challenges employing inquiry processes along with Model 2 strategies to investigate specific context based issues can be advantageous.

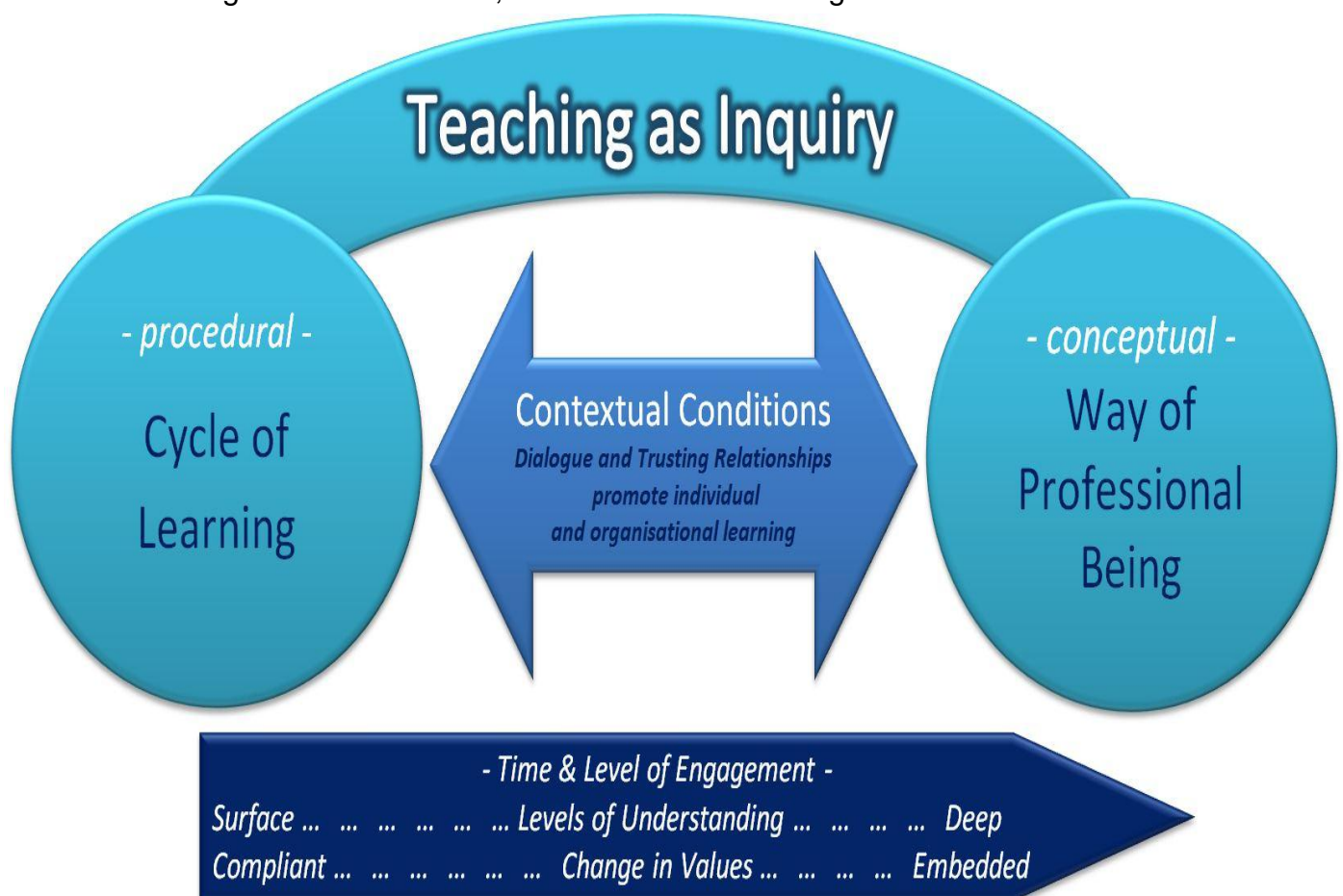
Leaders can develop systems and establish the cultural conditions that are conducive for a culture of inquiry to thrive in an organisation; however a challenge this study identified was the espoused views of school leaders and some teaching leaders was that teachers need to be professionally responsible and accountable. A conclusion can be drawn that it is therefore an expectation that teachers engage deeply in their own professional learning and inquiries while also contributing in each context with the systems that have been set up from the school leaders. This requires teachers to have a belief in the value of professional inquiry and their role in the growth of the organisation. Initially leaders can start the change process through having dialogue one to one with individuals, however to enact organisational learning, dialogue needs to occur within teams and with the whole staff in order to optimise collaboration and learning across the school (Senge et al., 2000).

This study also revealed that leaders in this study had established layered levels of leadership in order to share responsibility and reinforce the leadership direction of the organisation established through the espoused practices and systems. According to Sergiovanni (2001) sharing leadership increases the number of people "engaged in the work of others, and thereby augments perception" (p. 112), while Gronn (2000) discusses that a distribution of leadership affects the capacity of others to collaborate and achieve the goals of the organisation. So this study could conclude that the

shared leadership practices in the three research schools promoted collaboration and increased engagement by reinforcing shared accountability across the organisation to achieve the goals of the organisation.

### **A conceptual understanding of Teaching as inquiry for conclusion**

Approaches to the understandings, systems and challenges for teaching as inquiry need to be viewed as layered, overlapping and recursive, much in the same way as the Areas of Practice in the Kiwi Leadership for Principals strategy (Ministry, 2007) and professional standards for principals (2008) are integrated (culture, pedagogy, systems, and partnerships and networks). The conclusions presented here from the findings can be integrated across each of the three research questions, one influences the other. Therefore the following diagram presented in Figure 7.1 summarises how teaching as inquiry can be understood and employed from synthesising the research findings and the literature; the elements of this diagram are then discussed.



*Figure 7.1: Understanding the concept of teaching as inquiry*

The light blue dumbbell shape represents the two ways of viewing teaching as inquiry with the procedural understanding of inquiry as a cycle of learning on the left and the conceptual understanding of inquiry as a way of professional being on the right. Below the light blue dumbbell is a dark blue arrow, this is to demonstrate that the longer educators are engaged in teaching as inquiry the adoption of an inquiry stance is likely to occur if educators can change the value they place on inquiry from one of compliance to one of embedding inquiry practice into their everyday professional activity. This dark blue arrow sits alongside organisational learning theory which suggests that through deliberate action and engagement individuals can explore their own assumptions, values and practices in order to reduce ineffectiveness (Argyris, 1990; Dick & Dalmau, 1999; Fullan, 2003; Senge et al., 2000; Sun & Scott, 2003). However, an integral element for individuals to engage in inquiry relates to the contextual conditions in which teachers work where leaders must create the conditions for inquiry to thrive in order to promote and harness individual agency and organisational learning represented by the medium blue double arrow. The contextual conditions influence how teachers can shift from viewing inquiry as a cycle of learning to that of a way of professional being. Primarily leaders need to establish conditions where dialogue is used as a tool for learning and inquiry; this can only occur if staff establish trusting relationships within their context to feel safe to share their current assumptions, practices and values. When these conditions are present staff have the opportunity to take risks engaging in their professional activity and discover new ways of understanding how their practice impacts on student outcomes. Cochran-Smith and Lytle (1993, 2009) call for educators to take an 'inquiry as stance' approach towards their professional lives in which educators are systematic and intentional in their teaching, learning and leading. Dana and Yendol-Silva (2003) also discuss an inquiry stance towards teaching where "this stance becomes a professional positioning, owned by the teacher, where questioning one's own practice becomes part of the teacher's work and eventually a part of the teaching culture" (p.9).

In order to have the optimal conditions leaders need to focus on the core business of the school leading learning (Ministry, 2008a). Leaders need to be

deliberate in ensuring that the school is a learning organisation creating shared understandings with staff of their expectations and what effective pedagogy looks like in their organisation is highly important. Expectations for implementing professional inquiry need to be clearly communicated and documented.

## **LIMITATIONS OF RESEARCH**

This research study gathered data on the understandings, espoused views of systems and practices and the challenges from the perspectives of school leaders and classroom teachers from three primary schools. Whilst the data collected provided a rich narrative of teaching as inquiry in three locations it was only a small sample, therefore results from a wider audience and wider geographical location may have enhanced the findings or produced a different set of results. I sought to address this in the research design by conducting a base-line questionnaire to a wider group of school leaders; however it was not possible to interpret the underlying assumptions and practices without direct dialogue with participants.

Although this study was strengthened by considering the views of school leaders and classroom teachers, a limitation of the study was that four out of five interviewees classified as classroom teachers also had a designated positional leadership responsibility in the school organisation and therefore the views of more classroom teachers in each organisation may have brought another perspective to the data collected. Only one participant out of the ten had no formal leadership position; if more classroom teachers were involved their voices may have given a richer understanding of teaching as inquiry in each organisation and different understandings and challenges may have been revealed to those that had leadership responsibilities and are privy to driving the strategic direction of the organisation.

Another limitation was the time and resources available to conduct the research. If time had allowed a more in depth investigation process in each case school may have revealed a different perspective to the view obtained.



A further questionnaire of staff in each research location would have provided more data from the perspective of staff as opposed to leaders in the organisation as a comparison to the espoused systems and those in use. Time was limited for the participants too, and I appreciate the time given (often released out of class) to participate in the research.

## **RECOMMENDATIONS**

There are several recommendations that need to be addressed at the following levels: external agencies, school leaders and teachers.

### **For External Agencies**

1. To consider using the term professional inquiry rather than teaching as inquiry to help separate the confusion in terminology between 'teaching as inquiry' and 'inquiry teaching'; professional inquiry places emphasis on teacher activity and that teaching is a professional activity.
2. For governmental agencies, or external facilitators (likely to provide professional development in schools), or educational researchers to provide school leaders with more information and professional development on the advantages of using professional inquiry based approaches as a vehicle for organisational learning.
3. Inquiry is embedded in the new RTC, although is not mentioned specifically in the professional standards for principals. I would recommend the inclusion of inquiry as specific terminology to address the cultural conditions for establishing schools as learning organisations.

### **For School leaders**

1. Establishing a culture of inquiry amongst the staff is paramount where there is a shared understanding of the importance of professional inquiry in order for staff to understand how the school as a whole uses individual teacher agency for whole school improvement (organisational learning). This could include working with staff to

develop a school model of teaching as inquiry (based on the NZC model, BES models or literature on inquiry), discussions on what effective pedagogy looks like in the organisation and how as a group of individual teachers they can collectively raise outcomes and what systems would serve teachers in meeting the needs of them as inquirers and lifelong learners.

2. Make it clear and transparent with staff what the expectations for teachers are in regards to meeting the new Registered Teacher Criteria because critical inquiry is an expectation for all teachers to engage in, which may affect their registration status.
3. Develop explicit systems that focus on enabling teachers to engage in open to learning conversations based on evidence (student and research) to investigate current practices and assumptions in order to make and monitor changes for sustained improvement in student and teacher learning. This may include performance management systems.
4. In order to have an environment of inquiry, staff need to have trusting relationships where they are able to take risks and learn from mistakes. Ensure that systems that are developed nurture inquiry for professional learning and development and are not for compliance.

### **For Teachers**

1. To understand that teaching as inquiry and inquiry teaching are two different concepts.
2. To develop individual agency and be professionally responsible for ensuring they understand the new Registered Teachers Criteria, because inquiry is embedded in the criteria and is an important aspect of effective pedagogy in the NZC.
3. To develop an inquiry mind-set towards their professional activity; self-accountability and professionalism to inquire and constantly improve their knowledge and practice in order to improve outcomes for their students, colleagues and self.

4. To participate actively in professional learning communities/conversations by considering changing their underlying assumptions, take risks to try new ways of teaching and monitor the impact of their teaching on student outcomes.
5. To view appraisal processes as an opportunity for learning. Actively seek feedback from colleagues about their current practices (based on evidence) in order to learn and improve.

### **Recommendations for future study**

This study has highlighted a duality present in teaching as inquiry from a procedural to a conceptual understanding; therefore further investigation could be made into the following areas:

- An investigation into the prevalence of inquiry as stance – as a way of professional being. What are teacher attitudes towards viewing professional inquiry as a way of being?
- How is professional inquiry incorporated into appraisal for learning processes for teachers?
- How does engaging in learning conversations promote a change in values towards teaching as inquiry?

### **Concluding Statement**

This research study has added to the body of literature on teaching as inquiry by identifying and examining the understandings, systems and challenges from three Auckland primary schools. It has primarily revealed the duality to which inquiry can be understood, the need for educators to adopt an inquiry stance towards their professional activity and for leaders to establish the optimal contextual conditions for a culture of inquiry to prevail. However, there are challenges and tensions inherent in the education system that do not make this an easy task for school leaders and teachers.

Although espousing inquiry as a professional stance and way of being is an ideal concept, because of the external requirements around performance,

standardisation and work intensification in the New Zealand context a paradox has occurred. Within the education system there is some deprofessionalisation of teachers and teaching so if inquiry remains at a procedural understanding it could become a compliance tool within performance management systems. The challenge is for leaders to create the conditions within their school context so that teachers are able to be professionals by adopting an inquiry stance without being told they have to. However, for leaders to create schools as learning organisations it takes time to establish and sustain valued relationships, trust, and dialogue which must be present if inquiry is to shift from a procedural understanding to one where teachers develop an inquiry stance.

Gunter (2001) postulates that “if we are sincere in our interest to improve and develop learning then we need to shift our gaze towards teacher and student activity and actions” (p. 140). In light of my research and the current literature pertaining to teaching as inquiry I would conclude that as educational leaders in the context of employing inquiry based approaches, if we are sincere in our interest to improve and learn then we need to broaden our gaze so inquiry does not just become locked in at the systems level but also encapsulates a professional being way of being.

## REFERENCES

- Absolum, M. (2006). *Clarity in the classroom: Using formative assessment – building learning-focused relationships*. Auckland: Hodder Education.
- Aitken, G. (n.d.) *The inquiring teacher: Clarifying the concept of teaching effectiveness*. From: TKI, First time principals, module 2, elements of teaching effectiveness. Retrieved from [www.tki.org.nz/r/governance/ftpp/module2/index\\_e.php](http://www.tki.org.nz/r/governance/ftpp/module2/index_e.php)
- Aitken, G., & Sinnema, C. (2008). *Effective pedagogy in social sciences: Tikanga a iwi: Best evidence synthesis*. Wellington: Ministry of Education.
- Alton-Lee, A. (2008). *Designing and supporting teacher professional development to improve valued student outcomes*. Paper presented at the Education of Teachers Symposium, Cyprus.
- Argyris, C. (1977). Double-loop learning in organisations. *Harvard Business Review*, September-October, 115-125.
- Argyris, C. (1990). *Overcoming organizational defences*. Needham, MA: Allyn & Bacon.
- Ball, S. (2004). Performatives and fabrications in the education economy: Towards the performative society. In S. Ball (Ed.), *Sociology of education* (pp. 143-155). London: RoutledgeFalmer.
- Bell, J. (2007). The trouble with questionnaires. In A. Briggs, & M. Coleman, (Eds.) *Research methods in educational leadership and management*, (pp. 224-236). London: Sage.
- Benade, L. (2008). A critical review of curriculum mapping: Implications for the development of an ethical teacher professionally. *New Zealand Journal of Teacher's Work*, 5(2), 93-104.
- Boreham, N. & Morgan, C. (2004). A sociocultural analysis of organisational learning. *Oxford Review of Education*, 30(3), 307-325.
- Bryman, A. (2008). *Social research methods* (3<sup>rd</sup> ed.). New York: Oxford University Press
- Cardno, C. (1998). Making a difference by managing dilemmas. *SET One Research Information for Teachers*, Item 13. Wellington: New Zealand Council for Educational Research.
- Cardno, C. (2007). Leadership learning: The praxis of dilemma management. *International Studies in Educational Administration*, 35(2), 33-50.

- Clarke, S., Timperley, H., & Hattie, J. (2003). *Unlocking formative assessment: Practical strategies for enhancing students' learning in the primary and intermediate classroom*. Auckland: Hodder Moa Beckett.
- Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. New York: Teachers College Press.
- Cochran-Smith, M., & Lytle, S. L. (1993). *Inside/outside: Teacher research and knowledge*. New York: Teachers College Press.
- Codd, J. (2005). Teachers as 'managed professionals' in the global education industry: The New Zealand experience. *Educational Review*, 57(2), 193-206.
- Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education* (6<sup>th</sup> ed.). Abingdon: Routledge.
- Conner, L. N. & Greenwood, J. (2008). The value of enabling teachers to research their practice. *New Zealand Journal of Teacher's Work*, 5 (2), 65-78.
- Dana, N. F. & Yendol-Silva, D. (2003). *The reflective educator's guide to classroom research: Learning to teach and teaching to learn through practitioner inquiry*. Thousand Oaks, CA: Corwin Press.
- Dalton, J. (2011). *Learning Talk: Build capabilities*. Hands on Educational Consultancy Pty Ltd. Publisher: Author from [www.leadingadultlearners.com](http://www.leadingadultlearners.com)
- Dalton, J. (2010a). *Learning Talk: Build understandings*. Hands on Educational Consultancy Pty Ltd. Publisher: Author from [www.leadingadultlearners.com](http://www.leadingadultlearners.com)
- Dalton, J. (2010b). *Learning Talk: Build the culture*. Hands on Educational Consultancy Pty Ltd. Publisher: Author from [www.leadingadultlearners.com](http://www.leadingadultlearners.com)
- Datnow, A. (2000). Power and politics in the adoption of school reform models. *Educational Evaluation and Policy Analysis*, 22(4), 188-213. DOI: 10.3102/01623737022004357
- Davidson, C. & Tolich, M. (2003). Competing traditions. In C. Davidson & M. Tolich (Eds.) *Social science research in New Zealand: Many paths to understanding* (2<sup>nd</sup> ed.) (pp. 23-38). Auckland; Pearson Education.
- Day, C. (2011). The layering of leadership. In J. Roberston & H. Timperley (Eds.), *Leadership and Learning*, (pp.13-26). Los Angeles, CA: Sage Publications.

- Day, C. (2003). The changing learning needs of heads: Building and sustaining effectiveness. In Harris et al., *Effective leadership for school improvement* (pp.26-51). London: RoutledgeFalmer.
- Deal, T. & Peterson, K. (1999). *Shaping school culture: The heart of leadership*. San Francisco: Jossey-Bass Publishers.
- de Landsheere, G. (1997). History of educational research. In J. P. Keeves (Ed.), *Educational research, methodology and measurement: An international handbook* (pp. 8-16). Oxford: Pergamon.
- Denzin, N. K. & Lincoln, Y. S. (2005). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.) *The Sage handbook of qualitative research* (3<sup>rd</sup> ed.), (pp. 1-32). Thousand Oaks, CA: Sage.
- Dick, B. & Dalmau, T. (1999). *Values in action: Applying the ideas of Argyris and Schön* (2<sup>nd</sup> ed.). Brisbane: Interchange.
- Earl, L. M., & Timperley, H. (Eds.). (2008). *Professional learning conversations: Challenges in using evidence for improvement*. Springer Science + Business Media B.V.
- Education Review Office. (2011). *Directions for learning: The New Zealand Curriculum Principles, and Teaching as Inquiry*. Wellington: Crown.
- Fitzgerald, T. (2008). The continuing politics of mistrust: Performance management and the erosion of professional work. *Journal of Educational Administration and History*, 40(2), 113-128.
- Fontana, A. & Frey, J. H. (2005). The interview: From neutral stance to political involvement. In N.K. Denzin, & Y. S. Lincoln, *The Sage handbook of qualitative research* (3<sup>rd</sup> ed.), (p. 695-727). Thousand Oaks, CA: Sage.
- Fullan, M. (2003). *The moral imperative of school leadership*. Thousand Oaks, CA: Corwin Press.
- Gordon, S. (2004). *Professional development for school improvement: Empowering learning communities*. Boston: Pearson Education.
- Gronn, P. (2000). Distributed properties: A new architecture for leadership. *Educational Management and Administration*, 28(3), 317-38.
- Gunter, H. (2005). *Leading teachers*. London and New York: Continuum.
- Harris, A. (2008). *Distributing school leadership: Developing tomorrow's leaders*. London and New York: Routledge.
- Harris, A. (2002). *School Improvement: what's in it for schools?* London and New York: RoutledgeFalmer.

- Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* Paper presented at the Australian Council for Educational Research Annual Conference, Australia.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London and New York: Routledge.
- Hinds, D. (2000). Research instruments. In D. Wilkinson (Ed.), *The researcher's toolkit: The complete guide to practitioner research* (pp. 41-54). London: RoutledgeFalmer
- Hopkins, D., & Jackson, D. (2003). Building the capacity for leading and learning. In A. Harris, C. Day, D. Hopkins, M. Hadfield, A. Hargreaves & C. Chapman (Eds.), *Effective leadership for school improvement* (pp. 84-104). London: RoutledgeFalmer
- Keeves, J. P. (1997). Methods and processes in educational research. In J. P. Keeves (Ed.), *Educational research, methodology and measurement: An international handbook* (pp. 8-16). Oxford: Pergamon.
- Lincoln, Y. S. & Guba, E. G. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (pp. 191-215). Thousand Oaks: Sage Publications.
- Lofland, J., Snow, D., Anderson, L. & Lofland, L. H. (2006). *Analysing social settings: A guide to qualitative observation and analysis* (4th ed.). Belmont: Wadsworth/Thomson Learning.
- Johnson, B. (2004). Local school micropolitical agency: An antidote to new managerialism. *School Leadership & Management*, 24(3), 267-286.
- MacBeath, J., & Dempster, N. (Eds.). (2009). *Connecting leadership and learning: Principles for practice*. London: Routledge.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Ministry of Education. (2011). *New Zealand Curriculum Update 12*. Retrieved September 1, 2011: <http://nzcurriculum.tki.org.nz/Ministry-curriculum-guides/Curriculum-updates/NZC-Updates>
- Ministry of Education, (2010). *Primary Principals Collective Agreement 2010-2012*. Retrieved May 10, 2011: <http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/PrimarySecondary/SchoolOpsEmploymentConditions/PrimaryPrincipalsCollectiveAgreement20102012.pdf>
- Ministry of Education, (2008a). *Kiwi leadership for principals: Principals as educational leaders*. Wellington: Author.



- Ministry of Education, (2008b). *Policy and Strategy*. Retrieved 21 August 2010:<http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/PolicyAndStrategy/SchoolingInNewZealand/TeachingAndLearningPolicy.aspx>
- Ministry of Education, (2008c). *Ki te aotūroa: Improving inservice teacher educator learning and practice*. Wellington: Learning Media.
- Ministry of Education, (2007). *The New Zealand curriculum for english-medium teaching and learning in years 1-13*. Wellington: Learning Media.
- Ministry of Education (2005). *Making a bigger differences for all students; Schooling strategy 2005-2010*. Wellington: Author.
- Moore, P. (2006). *Iterative Best Evidence Synthesis Programme: Evidence Based Policy Project Report August 2006*. Wellington: Ministry of Education.
- New Zealand Teachers Council, (2010). *Registered teachers' criteria handbook 2010*. Wellington: Author.
- Piggot-Irvine, E. (2003). *Creating open, high trust, and low defensive teams*. Paper presented at the First Time Principals Programme, Auckland.
- Piggot-Irvine, E. (2006). Establishing criteria for effective professional development and use in evaluating an action research programme. *Journal of In-service Education*, 32(4), 477-496.
- Reid, A. (2004). Towards a culture of inquiry in DECS, *Occasional Paper Series, no.1*. Adelaide: South Australian Department of Education and Children's Services. Retrieved from [http://www.decd.sa.gov.au/learnerwellbeing/files/links/link\\_72576.pdf](http://www.decd.sa.gov.au/learnerwellbeing/files/links/link_72576.pdf)
- Reid, A., & O'Donoghue, M. (2004). Revisiting inquiry-based teacher education in neo-liberal times. *Teaching and Teacher Education*, 20 (6), 559-570.
- Robinson, V., Hohepa, M., & Lloyd, C. (2009) *School leadership and student outcomes: Identifying what works and why: Best evidence synthesis iteration*. Wellington: Ministry of Education.
- Robinson, V. & Lai, M. K. (2006). *Practitioner research for educators: A guide to improving classrooms and schools*. Thousand Oaks, CA: Corwin Press.
- Schagen, S. (2011). *Implementation of the New Zealand curriculum: Synthesis of research & evaluation*. Wellington: Ministry of Education

- Schein, Edgar H. (2010). *Organizational culture and leadership* (4<sup>th</sup> ed). San Francisco: Jossey-Bass.
- Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J. & Kleiner, A. (2000). *Schools that learn*. New York: Doubleday.
- Sergiovanni, T. J. (2001). *Leadership: what's in it for schools?* London and New York: RoutledgeFalmer.
- Sinnema, C. (2011). *Monitoring and evaluating curriculum implementation: Final report to the Ministry of Education on the implementation of the New Zealand Curriculum*. Wellington: Ministry of Education.
- Sinnema, C. E. L. (2005). *Teacher appraisal: Missed opportunities for learning*. Unpublished doctoral thesis, University of Auckland.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks: Sage.
- Stoll, L., Fink, D., & Earl, L. (2003). *It's about learning (and it's about time)*. London and New York: RoutledgeFalmer.
- Sun, P. Y. T. & Scott, J. L. (2003). Exploring the divide – organisational learning and learning organisation. *The Learning Organisation*, 10(4), 202-215.
- Timperley, H. & Parr, J. (2004). *Using evidence in teaching practice: Implications for professional learning*. Auckland: Hodder Moa Beckett.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration*. Wellington: Ministry of Education.
- Weick, K. E. (1976). Educational organisations as loosely coupled systems. In T. Bush (1989) (Ed.), *Managing education: Theory and practice*, (pp. 118-130). Milton Keynes: Open University Press.
- Wellington, J. (2000). *Educational research: Contemporary issues and practical approaches*. London: Continuum.
- Wilkinson, T. M. (2001). The core ideas of research ethics. In M. Tolich (Ed), *Research ethics in Aotearoa New Zealand* (pp. 13-24). Auckland: Longman.
- Yin, R. K. (2003). *Case study research: Design and methods* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage Publications.

## APPENDICES

### Appendix 1: Information Sheet Base-line Questionnaire



### INFORMATION SHEET for the Base-line Questionnaire

**Title of Thesis: Teaching as Inquiry: from the curriculum to the classroom**  
*(Title used at time of consent)*

My name is Justine Driver. I am currently enrolled in the Master of Educational Leadership and Management degree in the Department of Education at Unitec Institute of Technology and seek your help in meeting the requirements of research for a Thesis course which forms a substantial part of this degree.

The research study "Teaching as inquiry; from the curriculum to the classroom" will examine what systems school leaders use to promote and support a culture of inquiry, in order to understand practices that leaders can employ to ensure teaching as inquiry occurs. If developing and sustaining systems to "support and enhance learning" (Ministry of Education, 2008, p.19) is an expectation of effective leadership, then what is problematic is that not enough is known about a) the prevalence in schools that the practice of teaching as inquiry occurs; and b) what systems work to promote and sustain a culture of inquiry. My research will help to understand the problem in order to improve the development of systems because they are linked to the quality of teaching that impacts on the learning outcomes of students. The aims of my research are:

**Aim 1:** To examine understandings of teaching as inquiry and how this aligns with espoused systems and practices in a primary school.

**Aim 2:** To examine the subsequent challenges that primary school leaders and teachers face when implementing inquiry based practices.

I request your participation by completing the following base-line questionnaire which has been sent to other primary schools in the area. It is estimated to take no more than **10 minutes** of your time. By completing the questionnaire you are consenting for the data to be used in the findings of my research. You should not identify yourself or the name of your school on the questionnaire form. Please send completed questionnaires in the prepaid self-addressed envelope enclosed by **3 June 2011**. If you are unable to complete the questionnaire, your deputy or associate principal may do so.

I do hope that you will agree to take part and that you will find this participation of interest. If you have any queries about the project, you may contact my supervisor at Unitec Institute of Technology.

My supervisor is Howard Youngs and he may be contacted by email or phone.  
Phone: (09) 815 4321 ext 8411 Email: [hyoungs@unitec.ac.nz](mailto:hyoungs@unitec.ac.nz)

Yours sincerely  
Justine Driver

#### UREC REGISTRATION NUMBER: 2011-1168

This study has been approved by the Unitec Research Ethics Committee from 20 May 2011 to 19 May 2012. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

## Appendix 2: Base-line Questionnaire



### Base-line Questionnaire

*This questionnaire will take approximately 5-10 minutes to complete.  
Please return the completed questionnaire in the self-addressed envelope to xx Road, Howick by 3 June 2011.*

1. I am the Principal ☐ Yes ☐ No (please state position .....)
2. My school roll for students is: ☐ less than 100  
☐ 101 – 200  
☐ 201 – 300  
☐ 301 – 400  
☐ 401 – 500  
☐ 501 – 600  
☐ 601 – 700  
☐ 701 – 800  
☐ 800+
3. My classroom based teaching staff are: ☐ less than 5  
☐ 6 - 10  
☐ 11 - 15  
☐ 16 - 20  
☐ 21 - 25  
☐ 26 - 30  
☐ 30+
4. In the New Zealand Curriculum it states that “effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (pg. 35).  
What systems do you or the school employ to ensure a culture of professional inquiry exists in your organisation? (tick all that apply):
  - ☐ School specific planning templates
  - ☐ School specific evaluation/reflection templates
  - ☐ Planned discussions at syndicate/team meetings
  - ☐ Planned discussions at curriculum specific based meetings
  - ☐ Planned discussions at management meetings
  - ☐ Planned discussions at staff meetings
  - ☐ Self-review cycle
  - ☐ Appraisal
  - ☐ Registered Teacher Criteria
  - ☐ Other (please explain):

.....  
.....  
.....

5. Has the school developed a model to guide teachers in professional inquiry specific for your school, or do you follow an existing one?
- ☐ School specific model
  - ☐ NZC model of teaching as inquiry (Ministry, 2007, pg. 35)
  - ☐ BES Teacher Professional learning and Development Model (Timperley, Wilson, Barrar & Fung, 2007, p. xiii)
  - ☐ BES Effective Pedagogy in Social Sciences: Tikanga a iwi (Aitken & Sinema, 2008, p. 52)
  - ☐ No Specific Model
  - ☐ Other (please explain):
- .....
- .....
- .....
- .....
6. How is professional inquiry monitored in your organisation?
- ☐ 1-1 conversations between teachers
  - ☐ Paperwork evidence
  - ☐ Syndicate/team meetings
  - ☐ Other (please explain):
- .....
- .....
- .....
- .....
7. Who monitors that professional inquiry occurs in your organisation?
- ☐ Teacher is self-regulatory
  - ☐ Teacher colleague
  - ☐ Team leader
  - ☐ Assistant/Deputy Principal
  - ☐ Appraiser of teacher
  - ☐ Principal
  - ☐ Other (please explain):
- .....
- .....
- .....
8. What term/s or phrases are commonly used in your school for teaching as inquiry/professional inquiry based practice?
- .....
- .....
9. What is the most significant challenge/s as a leader in implementing professional inquiry based practices in your school? (1-2 sentences)
- .....
- .....

Thank you for completing this questionnaire.

### Appendix 3: Information Sheet for interviews



#### INFORMATION SHEET for Interviews

**Title of Thesis: Teaching as Inquiry: from the curriculum to the classroom**  
(Title used at time of consent)

My name is Justine Driver. I am currently enrolled in the Master of Educational Leadership and Management degree in the Department of Education at Unitec Institute of Technology and seek your help in meeting the requirements of research for a Thesis course which forms a substantial part of this degree.

The research study "Teaching as inquiry; from the curriculum to the classroom" will examine what systems school leaders use to promote and support a culture of inquiry, in order to understand practices that leaders can employ to ensure teaching as inquiry occurs. If developing and sustaining systems to "support and enhance learning" (Ministry of Education, 2008, p.19) is an expectation of effective leadership, then what is problematic is that not enough is known about a) the prevalence in schools that the practice of teaching as inquiry occurs; and b) what systems work to promote and sustain a culture of inquiry. My research will help to understand the problem in order to improve the development of systems because they are linked to the quality of teaching that impacts on the learning outcomes of students.

The aims of my research are:

**Aim 1:** To examine understandings of teaching as inquiry and how this aligns with espoused systems and practices in a primary school.

**Aim 2:** To examine the subsequent challenges that primary school leaders and teachers face when implementing inquiry based practices.

I request your participation in the following ways:

- a) I will be collecting data using an interview schedule and would appreciate being able to interview you at a time that is mutually suitable. It is anticipated that the interview will take no longer than 30 minutes. I will also be asking you to sign a consent form regarding this event.
- b) At the time of interview can you please bring any supporting school based documentation that I may have as a copy to support the investigation of systems to promote and support a culture of inquiry in your organisation. Any costs incurred in the photocopying of material will be reimbursed.

Neither you nor your organisation will be identified in the Thesis. I will be recording your contribution and will provide a transcript for you to check and edit before data analysis is undertaken. You have the right to withdraw from participating in the research up to 5 days after the interview. I do hope that you will agree to take part and that you will find this participation of interest. If you have any queries about the project, you may contact my supervisor at Unitec Institute of Technology.

My supervisor is Howard Youngs and he may be contacted by email or phone.  
Phone: (09) 815 4321 ext 8411 Email: hyoungs@unitec.ac.nz

Yours sincerely  
Justine Driver

#### UREC REGISTRATION NUMBER: 2011-1168

This study has been approved by the Unitec Research Ethics Committee from 20 May 2011 to 19 May 2012. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

## Appendix 4: Interview Consent Form



### INTERVIEW CONSENT FORM - ADULTS

**DATE**

**TO:** [participant's name]

**FROM:** Justine Driver

**RE:** Master of Educational Leadership and Management

**Title of Thesis: Teaching as Inquiry: from the curriculum to the classroom**

*(Title used at time of consent)*

I have been given and have understood an explanation of this research and I have had an opportunity to ask questions and have had them answered. I understand that neither my name nor the name of my organisation will be used in any public reports. I understand the interview will be recorded and all data (both written and digital) will be kept secured. I will be provided with a transcript of the interview for checking and editing before data analysis is started and that I may fully withdraw myself or any information that has been provided for this project up to five days after the interview.

**I agree to take part in this project.**

**Signed:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**UREC REGISTRATION NUMBER: 2011-1168**

This study has been approved by the Unitec Research Ethics Committee from 20 May 2011 to 19 May 2012. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

## Appendix 5: Leader Interview Schedule



### Interview Schedule for School Leaders

- 1) What is your understanding/definition of teaching as inquiry?
  - What has led or informed you to reach this understanding?
- 2) In the New Zealand Curriculum it states that “effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (pg. 35). Have you or the school developed a model to guide teachers in professional inquiry specific for your school, or do you follow an existing one?
  - Do you have a specific part in your school policy or procedures in a curriculum implementation plan that outlines what effective pedagogy looks like at your place? And if so, does this include a model/your model/your systems of/for teacher inquiry?
- 3) What systems do you employ to ensure teaching as inquiry occurs amongst your classroom teachers? What evidence do you have?
  - Teacher inquiry requires a fair amount of skill around productive learning conversations. Have your team leaders and teaching staff been involved in opportunities to understand learning conversations?
- 4) How often are teachers expected to engage in professional inquiry?
  - Do you think the staff understand that by engaging with teacher inquiry it fulfils a component of the Registered Teacher Criteria?
  - Do you think the staff see teaching as inquiry as merely raising student outcomes or that a large focus is on changing their actual practice?
- 5) How are you as a leader informed of how professional inquiry occurs/is working amongst your staff? As a management team what practices do you follow to discuss student achievement?
- 6) From the Kiwi Leadership for Principals Model (Ministry, 2008) there are four areas of practice that school leaders work within to lead change and solve problems in their schools: culture, pedagogy, systems, and partnerships and networks. Teaching as inquiry encounters all these areas. What challenges do you believe school leaders face when implementing inquiry based practices with staff and how can you overcome these? What do you believe an effective school leader needs to ensure teaching as inquiry occurs?



## Appendix 6: Teacher Interview Schedule



### Interview Schedule for Classroom Teachers

- 1) What is your understanding/definition of teaching as inquiry?
  - What has led or informed you to reach this understanding? (school PD, policy, implementation plan, outside courses, own professional reading, involvement in other contracts?)
- 2) In the New Zealand Curriculum it states that “effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (pg. 35). What do you do to inquire into your practice, and how often?
- 3) Has the school developed a model to guide teachers in professional inquiry specific for your school, or developed systems to help you inquire into your practice? What evidence can you show?
- 4) Does this model or systems help you to inquire into your practice? Would you modify them in any way?
  - Do you see teaching as inquiry as merely raising student outcomes or that a large focus is on changing their actual practice?
  - Are you aware that by engaging in teaching as inquiry you are fulfilling criteria 12 of the new Registered Teacher Criteria?
  - Teaching as Inquiry requires a fair amount of skill around having productive learning conversations with your team members/leaders – have you had the opportunity to learn about and engage in how to have an effective and productive learning conversation?
- 5) What challenges do you face when implementing inquiry based practices and how do you overcome these?